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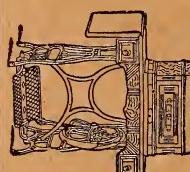
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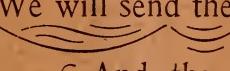


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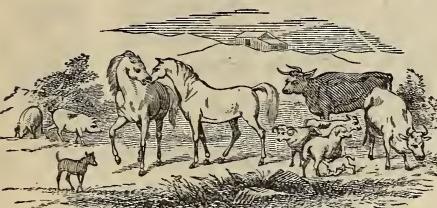
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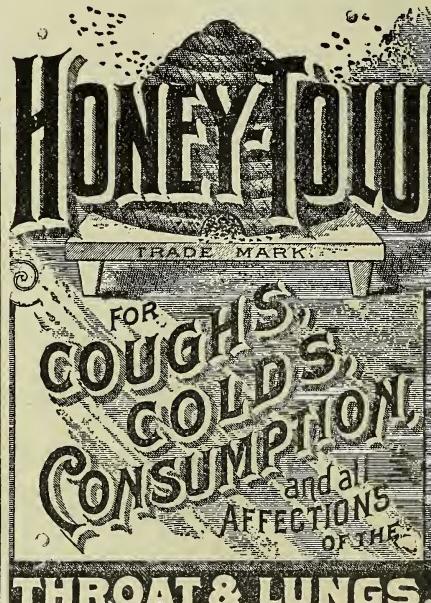
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And the crackling flames played hide and seek with the shadows hid away
In the yawning mouth of the chimney, so awfully huge and gray ;
Or leaped out on the red brick hearth or danced with the shadows there,
While the old wheel kept the best of time in the firelight's fitful glare.

Singing and spinning,
Spinning and singing,
Now fast and faster it turns,
And the flames leaped high,
And the shadows danced by
When grandmother used to spin.

The wool on the old brown spindle was as snowy as the snowdrifts outside,
And seemed as we watched it whirling round like a snowball taking a ride
Then winding the yarn in a big round ball, so firm and soft and white,
We were almost afraid it would really melt in the heat of the open firelight ;
But tossed it about and watched it grow, as the wheel kept buzzing round,
And laughed and romped in the ruddy glow, and thought it the sweetest sound.

Spinning and singing,
Singing and spinning
Now fast and fast
And the flame leaped high,
And the shadows danced by
When grandmothe...ther used to spin.

For The Maryland Farmer.

JANUARY 1896.

BY THE EDITOR.

 A GLAD NEW YEAR to all our readers.
Happy greetings for the commencement of the new volume of the MARYLAND FARMER—the 33d volume of the model agricultural magazine of our country—which has found so hearty welcome in so many homes.

We would like to outline the work, which we have now in our hands, as the great work for our magazine during the year before us. It is this :

To secure the prosperity of the farmers by enabling them, First, To reduce their expenditures of cash; and second, To obtain a larger amount of the cash which consumers pay for their produce.

We think we can aid the farmers of our country to accomplish these two things; and, looking upon the matter from a wholly disinterested standpoint, we will speak now as if no possible obstacle stood in the way of a purely judicial decision of the question.

During the past year the farmers of Maryland have paid out for manufactured fertilizers a sum slightly rising above three millions of dollars, and it is the opinion of the writer, backed by the experience of thousands who have used these fertilizers, that in very few cases have they paid the cost of using them.

We do not say that nitrogen, phosphoric acid and potash have not been needed, and where used have not bettered

the crops; but we do say it is the experience of hosts of farmers that where these have been bought in manufactured fertilizers they have not paid the cost. If they had been bought in their best form, before they had been mixed with inferior or positively injurious additions, the verdict might have been different; but the temptation to make such additions is so great, that it requires a man of sterling integrity to withstand it. The wealth which comes to the manufacturers of these articles shows where the temptation lies.

In a discussion on this subject in the Farmers National Congress, lately held in Atlanta Ga., the writer was told by a Massachusetts delegate, that, when they could not get \$2.50 a ton for their leather scraps in Massachusetts, they sent them to Maryland to be worked up into fertilizers, and that Baltimore was their great market. This was an open statement before the Congress, which was one of the finest bodies of agriculturists that has ever met in our country.

Leather scraps, ground up and mixed in the manufactured fertilizers, supplies a worthless form of nitrogen for which farmers are paying at the rate of three hundred dollars a ton.

Our object, however, is during this year to set forth some points, which, if followed, will enable the farmers to do without artificial fertilizers, and thus to cut off by far the greatest drain upon

their cash. It has been demonstrated by practical men, prominent in our country, successful farmers, who have started at the very bottom of the ladder and who now stand very near the top, that it is not only possible ; but it is wholly practicable, to thoroughly fertilize lands, to grow good crops and at the same time enrich the ground, without using a pound of artificial fertilizer in any shape.

When the farmer comes to the city and finds himself obliged to pay out every cent he has earned during a whole year of hard work, for his fertilizer bill; we think, if we can show him how to do without paying out this money, we will add something to his prosperity. If we are permitted to do this, it will be one of the blessed things in the career of the Maryland Farmer ; and we are confident we can do this. The year 1896 will be a marked year in our history in our labors in behalf of the farmers in this respect.

It will be understood that so far as the manufacturers of fertilizers are concerned, we do not question that they are in the main as honest and honorable as any other class of our citizens; but when one of them tells us that ground leather is just as good nitrogen for crops as nitrate of soda, we no longer wish to converse with that manufacturer on that subject. What little knowledge of chemistry we have, forbids us taking stock in that man's goods. The honest and honorable manufacturer has a legitimate business for those who can afford to use his fertilizer, but the farmer who depends upon his farm for his living, and perhaps to pay back debts, cannot afford to use his wares.

We do not hesitate to say that certain chemicals, if the farmer is skilled as a chemist as well as a farmer, may be made slightly profitable. But we will not hesitate to say that about one out of a thousand of our farmers—however skilled they may be as farmers—is skilled as a chemist. The professors in our Agricultural Experiment Stations, backed by unlimited cash in their experiments, and with the best knowledge that years of chemical manipulation of soils and of fertilizing ingredients have brought to them, are able to do a work which no farmer can hope to equal under any circumstances; and it is folly for the ordinary farmer to put his hard earned dollars in such experiments, backed only by his entire ignorance of the chemicals he is using. And when we say ignorance, we do not mean to reflect in the slightest degree upon the intelligence of the farmer; for the best lawyers of our country, the best ministers of our land, the greatest bankers, merchants, and authors, are just as ignorant when chemical elements are placed in their hands. It requires an expert to deal with these things, and to make a profit out of them. If a farmer makes a profit by handling them, it is always an accident.

We have said our say for January 1895. It is only introductory to the work we have laid out before us, to be discussed during the coming year, in place of the stereotyped directions "to plow for corn this month," "to plant peas now," or to do some other mechanical work in its season. May we discuss this matter in a way, so that at the end of the year each reader may say, The good old Maryland Farmer has helped to make me have a Happy Year.

For the Maryland Farmer.

BIRDS AND ANIMALS.

BY A. E. ACWORTH.

We pity the man whose love of birds and animals is limited to their use for food, or for purposes of travel or draught. The man who cannot pause for a moment to listen to the song of the sparrow or wren—watch the gambols of the timid hares and young squirrels on a soft pleasant morning, has no “music in his soul, and is only fit for stratagems and spoils.”

Outside of these influences calculated to lighten labor, and cause us to look up from nature to nature’s God, they have a higher and a wider purpose, if that be possible, to teach us what to plant and sow with an assurance of success, and not to throw labor, time, and money all away.

Cumming, in his South African Expeditions, called attention to the fact that the color of the plants and trees gave indications of the animal life to be found there, and Prof. Merriam, ornithologist of the Agricultural Department, in giving the trees and plants where certain species of birds and animals could be found, incidentally adds confirmation to this law of mimicry, as it has been called. And may not the destruction of our forests with their trees and undergrowth be of itself the main cause. Cumming states that so striking was this mimicry, that he was often close to so large an animal as the elephant without being able to detect it except by the closest scrutiny.

Prof. Merriam has discovered another general law that governs the distribution of animals and birds from the Atlantic to the Pacific, from Greenland to near the southern limits of the United States

and that is, that they are all controlled in the distribution by the “law of equal temperature at the time of reproduction,” laying of eggs and bringing forth of young.

Accepting this as a fact, and comparing it with the recent bulletins of the department, of “hawks, owls, crows, crow black birds, and woodpeckers and their foods” have established the fact that their foods consist to a great part, of grass, seeds, insects, and berries of different kinds.

In a late article it was attempted to show that the destruction of their breeding places and the westward migration of population carrying their food with them had no little to do with their scarcity, as increasing its supply.

The scarcity of our usual birds the past season, coupled with an unusually cold February, when it is possible our migratory birds commence their annual movement, may have caused it; but we are more disposed to attribute it to a change of temperature that now seems more irregular than formerly, in the variableness of heat and cold in the month, although its amount may be the same. And this is in strict accordance with Prof. Merriam’s law of isotherm, for while this holds good in the average temperature of a place for 50 or 100 years, it fluctuates much in the separate years that go to make it up—no less than 13 degrees here on the lower Eastern Shore in 20 years, between the highest and lowest temperature. But that was when we were in our short clothes. And here at Mardela, calling May the pairing season, there has been a difference of 5° in 7 years.

Are we in that point of depression that

follows cold years? May we ever expect more regular temperature that will cause the birds to come back? It is useless to look for bears, wolves, foxes, wild turkeys or pheasants, for unfortunately the forests are gone where they once roamed at "their own sweet will," practically unharmed. The white man has driven out the Indian and almost exterminated him, can we look for less where instinct and not mind rules? No longer do those dusky sons of the forest roam the woods, and as they stand beneath their favorite shade proudly claim it as "their own, their native land." A few darts, a few tomahawks found here and there tell the mournful tale of what has been.

We have left fighting them for the more ignoble task of fighting insect enemies of all kinds, that threaten to "eat us out of house and home," and are seeking the laws of winds and rain, of heat and cold, not by the buds and berries of the trees, nor by their growth as the Indians did, but more blindly if possible than they with other things of our own invention.

The "procession of the equinoxes" caused the flood and ice age, so that equinoctial animals are yet preserved in the far North. Who can tell what crowded population, steam and electricity, when harnessed by man, may do with climate.

Shall the birds ever come back to gladden us all, or has a changing temperature, slowly it may be, but surely, sent them away for ever? Already the roc, largest of known birds, has only a few eggs and skeletons with no plumage to tell it ever existed. To how many more here must we say, "*Vale.*"

The Ologies.

Since the creation of the Department of Agriculture, which was designed for the enlightenment of the farmers of the republic, the experts who do the bureau work have by degrees become classified into various sections, the purpose of which seems to be to introduce as many "ologies" on the farm as we are accustomed to see in the curriculum of high-school girls. The report of the Secretary of Agriculture fairly bristles with them. We find among the list Vegetable Pathology, Pomology, Entomology, Ornithology, Mammalogy and Agrostology. Such hard names one would think are well calculated to stun an old fashioned Tuckahoe farmer of the Eastern Shore. One of the names at least, Agrostology, would be a puzzler even for the Vassar girl if the report did not inform us that the division is "devoted to the investigation of grasses and forage plants and experiments in the culture of our native species." There is nothing like book learning for farmers. We ought to expect a great deal from a function of government with such an imposing name as "Agrostology."—*The Sun.*

Udder Development.

The udder of a cow is capable of development by use or something similar to use, and if the udders of the heifers are rubbed systematically for a short time morning and night before they come in first, they will have bigger udders and give you more milk and be capable of milking for a longer season than they otherwise would. It is just developing the milk glands; and if the heifer is

managed so as to make her give milk for 10 months the first year she will form the habit for next year. That is how you can have the cow working for 12 months in the year.

It has been claimed that if a cow is making milk for a long period every year she will grow weak. Instead of that she will grow strong. She will grow strong in the organs of production and that is what we are after.

What is meant by a good constitution? I will tell you what I mean by it. It is the power to stay in good health, the power to perform the functions of life—in the case of a cow carrying young and giving milk—and the power to render good service. Any animal that does not have these three has a poor constitution.

—Prof. Robertson.

Big Trees.

The big trees of California are said to be surpassed in height by Eucalyptus trees in Australia which grow in the Victoria state forest on the slopes of the mountains dividing Gripps Land from the rest of the colony of Victoria, and also in the mountain ranges north of Cape Otway. There are only four of the California trees known to be above 300 ft. high, the tallest being 325 ft., and only about 60 have been measured that exceed 200 ft. in height. But in the large tracts near the sources of the Watts river (a northern branch of the Yarra-arra, at the mouth of which Melbourne is built) all the trees average from 250 to 300 ft. in height, mostly straight as an arrow and with very few branches. Many fallen trees measure 350 ft. in length, and one huge specimen was discovered

lately which was found, by actual measurement with a tape, to be 435 ft. long from its roots to where the trunk had been broken off by the fall, and at that point it was 3 ft. in diameter, so that the entire tree could not have been less than 500 ft. in total height. It was 18ft. in diameter at 5 ft. from the ground.

Drilled vs. Corn Planted in Hills.

At the Ohio Experiment Station, corn planted in drills did not suffer more than that planted in hills this last summer. The only reason that we could suggest why corn should have suffered more from the drought when planted in drills than planted in hills, if other things were equal, is that the drilled corn may have been planted more thickly than that which was in the hills. Careful experiments go to show that for each pound of dry matter produced in growing corn three hundred pounds of water is evaporated through the plant. The more plants, therefore, on a given area, the more water would be pumped out of the soil, and during a period of drought thickly planted corn might suffer more than that not so thickly planted. It may be stated quite positively that, generally speaking, for the State of Ohio, alfalfa will not do so well as clover. The statement made forty years ago that alfalfa would not prove successful where medium red clover grows luxuriantly has proven a general fact. Chinch bugs may be expected to increase unless attacked by fungus diseases or retarded by a cold wet season. They harbor over winter under any sort of protection such as sticks, boards, corn stalks, vegetation of any kind, that will serve to protect them.

Fall plowing would thus tend to diminish their numbers as it lessens their protection. It is very important, however, that all fence rows, hedges, and waste places should be thoroughly cleaned up to prevent harboring them.—*Prairie Farmer.*

The Vanderbilt Arboretum.

All those Americans who are interested in the material welfare of their country will watch with interest what Mr. George W. Vanderbilt is doing on his North Carolina estate. Mr. Vanderbilt, as is well known, is making on his estate a sort of model forest, where scientific forestry is to be practiced, and experiments made in acclimating valuable foreign trees, and in the most profitable management of the native species; but every one does not know that this plan includes horticulture and agriculture as well as forestry, and that he wishes and hopes to make his experience valuable to American farmers and land owners everywhere. With this view, he proposes to build on his property a little village, including not only a hotel, but houses and stores, where people interested in agriculture, who come properly introduced, may rent rooms or houses for themselves and their families, for such time as they may desire to study the work going on upon the estate. There can be no doubt that there will be plenty of applicants, for nowhere else in this country can such opportunities for advanced study of the sort be found. Fortunately for his countrymen, Mr. Vanderbilt is not only able, but willing, to expend large sums of money in experiments which may return, for the present, nothing but advances in scientific knowledge; and it is just these experiments which are per-

haps, in the end, most valuable to the country.—*American Architect.*

Better Quality.

In the keeping of sheep on the farm, there are two good reasons why it will be found best to keep only sheep of a good quality: One of these is in the fact that a good sheep, kept thrifty, grows not only more wool but better wool as well as more and better mutton. An inferior product of any kind rarely brings as remunerative prices or sells as readily as the better quality. With mutton there is one other reason that ought to be of some weight, and that is good mutton helps to increase consumption, while poor mutton often so disgusts the consumer that he too often resolves not to purchase any more, and this is against the producer as with nearly or quite all products, a better quality helps to increase consumption, while the poorer grades rather injure consumption. Under present conditions in the breeding and raising of sheep the mutton must become an important item. A good sheep can grow good wool and good mutton at the same time and the chances for profit are much better than when all the profit must be derived from one source.

Keeping the sheep in a good thrifty condition and under shelter when the weather is inclement, will give a better growth and quality of wool, and this kind of treatment will grow better mutton. Any kind of an animal grown for meat will be of a better quality if kept in a good thrifty condition from birth, and good mutton sells for a better price and pleases the consumer better, besides returning the purchaser a better profit.—*Dorset Quarterly.*

For the Maryland Farmer.

FARM ITEMS.

There is no economy in using a cheap or convenient stallion.

Do not neglect your orchards—spray your trees. It will pay.

Whey for pigs has a higher feeding value pound for pound than turnips.

The best time to plow under a green crop is when it comes into full bloom.

Pumpkin seed should be removed from the pumpkin when fed to cows or brood sows.

While work is slack, get the old manure and compost out on the land, spreading as you go.

Milk is now successfully sterilized by subjecting it to an alternating electric current.

Never use barnyard manure on land to be cultivated in beets unless it be in winter before sowing.

Mushrooms are a profitable crop. Fresh horse manure is one of the absolute necessities to its propagation.

Remember one strong colony of bees in the spring is worth half-a-dozen weak ones. Unite and make one good one.

Diversify in your live stock business. Three kinds of domestic animals should be kept on the farm continually as a rule.

Don't feed the ram fattening food. He does not need it. To keep him vigorous he should have bone and muscle forming foods.

The sap of wood exposed to high temperature is very apt to undergo a kind of fermentation which produces a rot in the timber.

Corn and wheat, half and half, was the best grain feed for hogs at the Illinois Experiment Station, wheat alone next, and corn alone third—fed dry.

Too much care cannot be exercised in keeping sheep away from pastures of a low, wet and spongy character. They are a prolific source of disease.

The barnyard is full of manure, where it is in the way, while the currant and gooseberry patches are hungry for it. Put it on thick now all around the plants and

all over the ground; indeed, thick enough so weeds will have hard work to get through next Spring, and cultivation will be unnecessary. Coarse litter will do well enough. This is the way to raise satisfactory crops of these satisfactory fruits.

Have the seed potatoes exposed, as much as possible, to light and air, to reduce the liability of sprouting to the minimum. They may turn green but that will not hurt them for seed.

Carrots are a good winter food for horses, colts and cows. A few pounds fed to the cows each day will go far toward making that fine butter color that is so desirable in the winter.

Green wood hisses and splutters when burning because of the large amount of water contained in its fibres, which is changed into steam by the heat, and bursts off tiny splinters in making its escape.

All styes and places where pigs are kept should be built so as to keep out cold weather. No animal is more subject to injury from cold and dampness than the pig. Pigs suffer from rheumatism often from sleeping in cold and damp styes.

Fall sown rye on light loam soil makes an excellent crop to plow under in spring. Do this just before corn planting, add a little potash salts and dissolved bone black and without the use of expensive nitrogen you will be pretty sure to make a good corn crop.

Potatoes should be well dried before storing, and should be kept so. It is said to be an excellent plan to put in a number of ventilators here and there before the tubers are stored. All moisture is thus given an opportunity to escape readily, and the potatoes do not sprout nor spoil.

The Indiana Experiment Station finds that, other things being equal, steers fed on ent clover hay will make a better growth than those fed on the whole hay, and in their experiment of 100 days the gain was nearly two per cent. A slight amount of exercise was found beneficial during the fattening process.

The Maryland Farmer.

THE SIMMENTHALER CROSS.

BY S. HOXIE.

A chief of Jersey breeders, with a herd three hundred strong, after nearly twenty years' experience, makes the following statement :

"I have had constantly brought to my attention the fact that owing to persistent inbreeding the stamina and health of the Jerseys was on a yearly decline, and from the losses in our herd I found that if I wished to retain my dairy and furnish absolutely pure milk and butter on the lines that we have always used, to make

"animal pay for the food consumed and the care given, we must do something to put new life in the Jersey cow."—(Breeders' Gazette, Oct. 9, interview with Havemeyer.)

This, no doubt, is an uncolored statement of facts. Mr. Havemeyer evidently has been bound to succeed with his Jerseys. He has imported from their native land, he has bought from the best herds, he has bred from the best strains, he has availed himself of the best appliances and the best markets—now, without turning from his purpose he frankly confesses that if he wishes to retain his dairy and furnish absolutely pure milk and butter (by pure he evidently means healthful—free from disease germs) he must do something to put new life in the Jersey cow.

Had this statement come from some unintelligent breeder, without means or opportunities for success, it would have little weight. Men without ability or without sufficient means are liable to fail, whatever breed they may handle. Mr. Havemeyer's failure is not from such causes. He is, no doubt, right in ascrib-

ing it to the lack of health and stamina in the Jersey cow—a lack of constitutional vigor to resist climatic influences and to ward off contagious diseases lurking in every section of our country.

This is not a matter for rejoicing by those who handle other breeds. Breeders worthy of their calling wish each other mutual success, and they will wish Mr. Havemeyer success in his undertakings.

He proposes to put new life in the Jerseys by crossing them with Simmenthalers, a breed from Switzerland.

What are its characteristics? From a report on this breed to our State Department by Consul Mason of Basle, Switzerland, I quote and condense : "A cow exhibited at Lucerne in 1881, attained a weight of 2,494 pounds, * * the average weight of thoroughbred cows being about 1,400, though many choice herds average 1,700 pounds, and cows of 1,900 and 2,000 pounds weight are not uncommon * * * At Roseck, the insane asylum of Canton Soleuse, I have seen a herd of twenty choice cows, kept by the Cantonal government to supply the asylum with milk * * From careful records kept by Superintendent Marti, it appears that these cows average 21 pounds of milk daily or 7,665 pounds each during the year. This is a maximum record for an entire herd * * In the Alps where the grass is savory and richest, 25 pounds of their milk yield a pound of butter; in the valleys the quantity required for the same purpose varies from 28 to 30 pounds * * * They grow rapidly and are mature in their fourth year. They are of enormous size, compactly and cleanly built, and their flesh is fine-grained, tender and savory."

This breed will undoubtedly be a valu-

able acquisition to our country, but the wisdom of the proposed cross is questionable. It will be a violent one, especially if such enormous bulls are used.

The impression is strong that Mr. Havemeyer might have found breeds nearer home more suitable for his purpose. The Ayrshire is a beautiful animal of unquestioned health and stamina, the cow gives nearly or quite as much milk as the Simmenthaler, and it is as rich. The Red Polled, with equal stamina, is not behind in any dairy quality. And last, though not least, the Holsteiu-Friesian gives as rich milk and more of it.

A private letter lies before me from one of the largest breeders in California. He writes that he has largely crossed the Holstein-Friesian on other cattle. He says: "I have a half-bred Jersey and Holstein, thoroughbred on both sides, which produced 662 3-4 lbs. butter last year by Babcock test."

I have advocated the crossing of breeds for several years, and have made inquiries on the subject. From what information I have been able to gain, and from my own very limited experience, I am led to the tentative conclusion that a cross of medium-weight Holstein-Friesian bull with Jersey cows is a success. A cross thus made by me resulted in no difficulty of birth, and the produce was a large and very rich milker. I sold her to a large dairyman who has often said to me, "She was the best cow I ever owned." I cannot recommend the opposite cross—that of Jersey bulls and Holstein-Friesian cows. As breeders say, "It does not seem to be a good mix." I think our agricultural societies might confer a boon upon our dairy interests by a liberal offer of premiums for cross-bred cattle.

Yorkville, N. Y.

FERTILIZERS.

CONDUCTED BY H. J. PATTERSON,
Of the Maryland Ag'l. Experiment Station.

Contributions and Queries Invited from
all Sources.

For the Maryland Farmer.

Saw-Dust as a Fertilizer.

The amount of fertilizing material in saw-dust varies considerable according to the kind of wood it is from, and at best does not contain enough to make them valuable as manure.

Saw dust may often be profitably used as bedding for animals, for compost or even for mulching, though it is distinctly inferior to straw, leaves or muck for all of these purposes.

The amount of plant foods in saw-dust as compared with these other materials are shown by the following figures:

	In Air Dry Substance.		
	Potash Per cent	Phosphoric acid Per cent	Nitro- gen. Per cent
Saw-dust.....	0.10	0.05	1.00
Straw	0.50	0.25	0.33
Autumn leaves ...	0.30	0.18	0.75
Muck (Maryland)	0.96	0.20	2.24

Saw-dust may have a value for application to many soils aside from the amount of plant foods which they contain, in that they supply organic matter which has the power to start fermentation in the soil and form new chemical combination, thus rendering available existing plant foods. Saw-dust is also valuable for applying to some soils in order to change their physical structure and render them a better habitation for the roots of plants.

Some kinds of saw-dust are valuable to use as a bedding for cows when the manure is desired for hot-beds or any

similar purpose, as the saw-dust when mixed with the manure will set up a heat equal to that produced with horse manure; saw-dust from beech wood possesses this property to a marked degree.

Saw-dust is sometimes used as fuel—the air dry material yielding from $\frac{1}{4}$ per cent. to 1 per cent. of ashes. These ashes will contain 1 to 10 per cent. of phosphoric acid, 3 to 20 per cent. of potash (K_2O), and 20 to 50 per cent. of lime according to the kind of wood from which they are derived and are valuable as a fertilizer in proportion to the amount of plant foods which they contain.

H. J. P.

Manures—Recent Investigations.

BY DR. C. M. AIKIN, M.A., D.S.C.

The subject of the manorial value of different kinds of Thomas Slag, as it is known on the Continent, has been made the subject of a large number of recent investigations in Germany, by such distinguished experimenters as Professors Maercker and Paul Wagner. The results of these experiments are a little puzzling to understand. There seems to be a wide variation in the value of slag obtained from different sources; but what the exact reason of this difference in value is, is not so clear. A difference in the effectiveness of different kinds of slag was found to exist by Professor Maercker, in some experiments he has carried out on the subject. Comparing the effect of the phosphoric acid on slag with that obtained from soluble phosphoric acid in superphosphate, it was found that the effectiveness of different samples ranged from 57.8 to 95.6

per cent. of a like amount of soluble phosphoric acid. No relation could be traced between the percentage of phosphoric acid present and its effectiveness. By testing the solubility of the slag in a citrate solution, Wagner has found a direct connection to exist between this and the percentage of silicic acid present. The slag is most active in the soil which contains most silicic. Indeed, some slags seemed to show an effectiveness but slightly inferior to superphosphate. In the same set of experiments, Professor Maercker tested the value of bone-meal as a source of phosphoric acid. He is of the opinion that bone-meal is one of the least effective phosphoric manures, and where it has produced a good effect, the result has often been due to the nitrogen it contains.

The importance of sea-weed as a manure, especially in sea-coast districts, is considerable. Unfortunately, however, this subject has not received much investigation from experimenters, and little but general testimony as to its value has been recorded. It is consequently interesting for those who use it as a manure, to know that some investigations have been carried out in the island of Jersey as to its composition. The proportions of the more important constituents are found to vary within the following limits: Water, 75 to 82 per cent., nitrogen, .25 to .3 per cent., potash, .5 to 1.5 per cent., phosphoric acid, .1 to .13 per cent. The proportion of valuable constituents was lower in autumn and higher in spring than the average. The samples collected in summer gave the highest proportions of potash and the lowest of nitrogen. The deep seaweeds (colleys) are particularly rich in soluble

potash salts, but the "cut weeds" growing near the shore contain less potash, but more soda compounds.

The subject of the preservation of farmyard manure is one which ever possesses for the farmer the highest interest, and many experiments have been carried out with a view of discovering the best preservative to use for the purpose. In a number of experiments carried out by two German experimenters, Schmidt and Gerlach, such preservatives as peaty earth, kainit, superphosphate gypsum, precipitated phosphate, and gypsum were used. Of these it was found that neither kainit nor peaty earth were of much effect in preventing loss of nitrogen. The most efficient were found to be superphosphate gypsum and gypsum. It is pointed out, as a result of these experiments, that the loss is probably generally greater than what Holdefleiss, a well-known German investigator, is inclined to assume as a result of his experiments on the same subject.

Whatever preservative is used, it is of first importance that the manure heap be protected from excess of moisture. It is from this source that the greatest loss occurs, as the water washes out the most valuable constituent.

The most recent experiments on that highly interesting question, the assimilation of free nitrogen by microbes, have been published by the eminent Russian investigator, Winogradsky. He has succeeded in isolating from other soils organisms a butyric ferment. The nitrogen which is fixed is mainly in an insoluble organic form. It has been called the *Clostridium Pasteurianum*. This microbe has been the only one which its

discoverer has been able to identify as possessing the power of assimilating nitrogen, at any rate to any extent. It is alone able to exist without a supply of combined nitrogen.

The loss sustained by the soil, of nitrogen in the form of nitrates, in drainage water, is, it is well-known, considerable. Much difficulty, however, has been experienced in attempting to estimate this amount. The present writer dealt with the subject some years ago in a lecture delivered to the British Manure Manufacturers' Association. He has also dealt with it in his work "Manures" at considerable length.

If we take the loss incurred at the Rothamstead soil under circumstances favorable to the most extreme loss, viz., unmanured fallow land, it amounts to from 54 to 21 lbs. per acre. The average for thirteen years was 35 lbs. per acre, on an amount of nitrogen equal to 2 cwts. of nitrate of soda. But the loss on cropped soils is very much less, especially in permanent pasture, where the amount is reduced to a minimum. Boussingault long ago calculated that in the waters of the Rhine some 220 tons of saltpetre were daily discharged to the ocean, in that of the Seine 270, and in that of the Nile 1100. Schloesing has recently been carrying out some interesting investigations on this question, and he has chosen the river Seine as the basis of his calculations. The results of these most recent researches on this subject show that the older calculations are rather in excess, and that the losses which take place from this source are very much smaller than has hitherto been supposed. He calculates that the loss per hectare (about 2½ acres) was 4.2 kilos. (9.45 lbs.)

It is noteworthy that the loss is smallest in poor soils and highest in rich soils.—*Ag'l Economist.*

For the Maryland Farmer

FERTILIZING TURNIPS.

BY C. K. M'QUARRIE.

Turnips being considered as a sort of catch-crop with a great number of farmers, particularly in the South, they don't get the attention the crop should get, and consequently are not given the position among the valuable crops that they deserve, and yet there are few root crops that will give more satisfactory results if properly managed; and being another one of our Fall crops in the South, a few remarks as to the way of growing them I trust will not be considered out of place.

It is generally considered that new land suits turnips best, but it is not always convenient or even possible to have that, but old land goes all right if the proper fertilizers are used. Turnips should always follow a grain crop as far as it is possible to do this, and never be made to follow on any account cabbage, Irish potatoes, or even tomatoes. If any of these crops are followed, you will be apt to get a very inferior article, as they will have a tendency to be wormy, and hollow-crowned and hollow-centred.

I find that to make a good crop of turnips the land has to be in the very best physical condition with a good deal of humus in the soil, and this crop being a rapid grower has to get a fertilizer that the soil can readily assimilate and get all out of it in the shortest time possible. Suppose we follow corn with a turnip crop, the corn stubble would have to be plowed as deeply as possible, and all

weeds, grass or trash completely covered under, and at the time of plowing scatter broadcast, say, two hundred pounds per acre of muriate of potash, and two hundred pounds of cotton seed meal for nitrogen. The potash and the nitrogen in their chemical action on the soil sweeten it and prevent any sourness that might take place by the plowing under of the grass, weeds, etc. If the land is bare of grass or other vegetation at time of plowing I would four hundred pounds of cotton seed meal instead of two hundred. After the land is well plowed and everything in the shape of vegetation covered, I run a five tooth horse cultivator across this plowing, at the same time scattering broadcast four or five hundred pounds of acid phosphate per acre.

Of course we must be guided in our quantity of fertilizers by the quality of the soil. If we have a very light sandy soil it will not assimilate a very heavy fertilization and is apt to fail in giving satisfactory results, and again poor lands may be in a good physical condition and give good results, and *vice versa*. In all our workings with soils, fertilizers we must be guided by the quality of our soil, and we have got to know it thoroughly before we can ever hope to get the best possible results. In growing a turnip crop we have to be careful in the nitrogen we give. If we use too much nitrogen the crop will be apt to run all to top and is also liable to be hollow in the centre and pithy, and the keeping of them for any length of time will be quite impossible. Potash is the great rectifier of this tendency and it also sweetens the acid in the turnip, and makes it so crisp and altogether of a superior quality.

Potash also helps its thrifty growth, and hastens its maturity; and the most important of all it insures its keeping qualities. I find turnips grown on land not sufficiently fertilized with potash, on being stored away don't keep well, but in a few weeks get soft and spongy and soon decay and rot. Whereas, those grown on land liberally treated with potash keep for almost any length of time, and maintain their quality to the very last.

There is an erroneous impression prevailing against the feeding value of turnips, but any one who has faithfully tested their value will readily admit that there are very few more profitable crops than the turnip. In Europe it is one of the main crops with all farmers. In Denmark where the finest butter in the world is made, the dairy cows are fed largely on turnips, and there is no doubt whatever of the effect turnips have on the flow of milk, any of us can tell that. In Scotland the mutton sheep are fattened entirely on turnips, and it is well known the quality of Scotch mutton commands the top notch in price.

Turnips mixed with potatoes makes the best of hog feed, and is a great deal cheaper than corn. Therefore I say the turnip crop is one of the best root crops we have got and what especially recommends it to the Southern farmer is that it is a Fall crop, succeeding a grain crop, thus making two crops on the same land in season.

DeFuniak Springs. Fla.

Small mares should not be bred to large stallions. Several writers of standing are giving evidence against this too common blunder. When the colt turns out badly, the fault is laid to the sire.

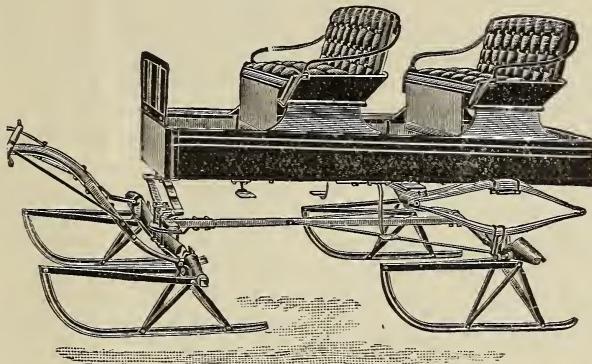
The small capacity of the little mare is apt to starve and cramp the young animal before it ever sees the light. It is foaled a big, rawboned, ungainly colt, and the youngster continues so, the big frame being built at the expense of the muscles. The owners of draft stallions should not encourage such breeding.

The Type of Boar for Breeding.

A pig less than 4 or 5 months old should not be selected, as before that age it is impossible to form a sufficiently accurate opinion as to his future development. The breeding boar should be of medium size, smooth build, straight, strong legs, short neck and heavy, compact body. Particular attention should be paid to the quality rather than the size. The shoulders should not be the largest part of the body, because not the most valuable. Proceeding from the head to the hams the meat gradually increases in value, hence the hams should be large in proportion to the rest of the body. The side that fits a straight edge from shoulder to ham, and a back that is broad and straight, belong to the type of hog we want. At six months he should weigh 150 lbs. and at 1 year 300 lbs., and this is not too fat for breeding purposes. He should be active, but not restless, vigorous, but not vicious.

The coarse, long-legged and long-bodied hog so much sought for by many is not a profitable breeder, no matter how long-bodied he may be, nor how much he may weigh when 1½ years old. The compact type shows great superiority in converting a given amount of feed into pork, and especially should all coarseness be avoided in a boar. He should be selected from a large litter, say of not less than

eight of even quality, for his progeny is likely to be near the average of the litter he is from. The mother should be a mature sow and of tested qualities as a brood sow and suckler. The test is important, as to have good pigs they must get plenty of milk while young.—[Tait Butcher, Miss. Exp. Sta.



STEEL RUNNER ATTACHMENTS.

We herewith give an illustration of Schofield's Steel Runner Attachments, which will convert your carriage, buggy or spring wagon into a sleigh at trifling expense. Manufactured by Duane H. Nash, Millington, New Jersey; 30 So. Canal Street, Chicago Ill.

These Runners are made of steel to fit all kinds of spring wagons and buggies, from the

lightest size up to two inch axle, and are provided with patent clamp fastenings which are clamped to the square part of the axle, relieving the spindles from any strain whatever. These fastenings can be attached so as to set the runners on the wide track if desired. This gives them a greater range of adjustability than any other runner attachment ever made.

The Standard Dictionary.

This incomparable work of Messrs. Funk & Wagnalls has aroused the envy of many makers of Dictionaries both in this country and England. While it is acknowledged by the best authors and publishers, even of Dictionaries, of this country, as far superior to anything of the kind previously in existence, it remained for an Englishman to pick out a few words (18) of indelicate meaning, and by that means attempt to arouse prejudice against this grand work. Most of these words can be found in all works which aspire to any degree of completeness; and it would have been remarkable indeed if they should have been rejected from this. They were included after passing the ordeal of over one hundred scholars and critics, in both America and England, who were the

committee on rejection of words. We regret to know that anyone can be found to lend himself to the vile work of distributing a circular with a collection of such words, since in all respects it is only accomplishing evil.

Modern Dentistry.

A good set of teeth, not only makes an improved appearance, but much better digestion, better health and prolonged life. Where the teeth have been lost, modern dentistry supplies new sets, almost equal to the natural ones. In this respect Dr. L. J. Pearce, 1008 Pennsylvania avenue, Operative Surgeon Dentist, a graduate of Baltimore Dental college, stands high for the satisfaction he gives all patients. His work is good and his prices moderate. See advertisement for further particulars

Compiled for the Maryland Farmer.

INTERESTING ITEMS.

Englishmen hold \$90,000,000 worth of stock in American breweries.

American flour only is used in the colony of Sierra Leone.

According to Government estimates the average yield of hay this year is only 1.06 tons per acre, against 1.15 tons in 1894.

The central traffic association has agreed that clergymen's rates for 1896 shall not be less than 1½ cents per mile.

The new vault of the New York clearing-house is designed to hold 210 tons of gold, or \$105,000,000 in coin. The vault is erected on a massive steel platform.

40,000 boxes of lemons were exported from Palermo in Sept. 1895, to the United States, against 9,000 boxes the same month in 1894.

The production of olive oil in Italy during 1894-'95, amounted to 51,330,137 gallons, of which 11,505,133 gallons were produced in Sicily.

There is no reasonable foundation for the belief that pine from which the turpentine has been drawn is of inferior strength and quality.

An inch of rain falling upon an area of one square mile is equivalent to nearly 17,500,000 gallons, weighing 145,250,000 pounds, or 64,844 tons.

The total population of Yucatan, according to the approximated estimate of the Government, about completed, is 500,000, including the capital (Merida) which has about 60,000.

Artificial quinine is produced by treating with sodium the base cuprein contained in the Brazilian shrub *remijia pedunculata*, and the resultant compound with methyl chloride.

According to the latest report of the Statistical Bureau, there are over a million more women and girls in Germany than men. The exact figures are 25,352,480 men, against 26,405,934 females.

A cablegram has been received from Paris to the effect that the French Government has cancelled all of the Algiers phos-

phate leases and that the government also had in view and would in all probability place a heavy tax on all phosphate exported from France and its colonies.

The shipments of foreign and colonial wool that passed through the United Kingdom in transit to the United States were 96,816,300 pounds this year, and 26,085,466 pounds in 1894.

A bulletin issued Nov. 25, at St. Petersburg stated that the Czarina, contrary to the traditional custom, is herself suckling her infant, the Grand Duchess Olga. She is, perhaps, the first Empress to do this.

It is merely a matter of conjecture for how long a time the earth will continue to give out oil. Coal deposits are capable of measurement, but it is impossible to tell the amount of oil which yet remains stored in the bowels of the globe.

The first real use of a corset of which there is any record was during the time of Caesar. The Romans, as well as the Greeks, were great admirers of female loveliness, and the "centures" or bands were freely used by the women of these nations.

Audubon societies are being organized by ladies of intelligence and kindly natures to oppose the ruthless and deplorable destruction of birds, pledging its members to buy no bonnets or other garments trimmed with feathers, ostrich alone excepted.

Mr. Geo. W. Vanderbilt's Biltmore is completed. There was a house warming at the mansion on Christmas day. All the members of the Vanderbilt family were there, including the illustrious mother, Mrs. W. H. Vanderbilt. The house stands upon an esplanade 700 by 300 feet. The outside walls of the palace are 375 feet by 192 feet. It is four stories in height. There are twenty bath rooms, and a succession of sleeping rooms, bewildering in their number, and in their exquisite furnishing and appointments. The estate comprises nearly 100,000 acres, or more than 160 square miles. Mr. Vanderbilt, the owner of this the most magnificent estate in America, is a bachelor.

FARMING IN JAPAN.**The Pursuit of 22,000,000 Persons.**

Japan is one vast garden, says *The Cable*, and as one looks over the fields he imagines that they are covered with toy farms, where children are playing with the laws of nature, and raising samples of different kinds of vegetables and grain. Everything is on a diminutive scale, and the work is as fine and accurate as that applied to a cloisonne vase. A Japanese farmer weeds his wheat fields just as an Essex farmer weeds his onion bed, and cultivates his potatoes and barley with as much care as a Bexley Heath market-gardener bestows upon his asparagus or his flowers.

Land Tenure.

The farmers live in villages and their farms are detached, sometimes a mile or two and three miles away from their homes. There are no fences or other visible signs of division, but every man knows his own land, for it has been in his family for generations. Irrigating ditches and little paths are usually the boundary lines. Theoretically all the land belongs to the Emperor, but the greater part of that under cultivation has been held by the same families for generations, and always descends from the father to the eldest son. The official statistics of Japan show that there are 11,400,008 men and 10,948,053 women engaged in agriculture, which is more than half the total population.

Objects of Culture.

Almost every variety of culture is carried on, and the soil is in constant use. A couple of acres are considered a large tract of land for farming purposes. Most of the farms are of smaller area, and the crops are greatly diversified. Upon such a little spot of land will be grown almost

everything known to the vegetable kingdom; one may see a few square feet of wheat, barley, corn, and millet, a plot of beans, perhaps 10 ft. wide by 20 ft. long, and a equal amount of potatoes and peas, while a patch of onions about as big as a grave, beets, lettuce, salsify, turnips, sweet potatoes, vegetable oysters, and other varieties of cereals and roots occupy the rest of the area.

Methodical System.

The farmer looks upon his growing crop every morning, just as an engineer will inspect the movements of his machinery, and if anything is wrong sets it right. When he cuts down a tree, he always plants another to take its place. The artificial forests of Japan cover many hundreds of square miles, and by this accuracy, economy, and care, the prosperity of the country is permanently assured. As one crop is harvested the soil is worked over, fertilized, and planted with something else. The largest area of agricultural lands in Japan is devoted to raising rice, perhaps as much as nine-tenths of the whole; and, as that crop requires a great deal of water, the paddies are banked up into terraces, one above the other, and divided off into little plots 25 ft. to 30 ft. square, with ridges of earth between them to keep the water from flowing away when they are flooded. All farming land is irrigated by a system that is a thousand years old, and some of the ditches are walled up with bamboo wicker work.

Harvest.

When grain is ripe it is cut with a sickle close to the ground. The bottom ends are carefully tied together with a wisp of straw; the bunch is then divided and hung over a bamboo pole to dry; some-

times in the field and sometimes in the back yard, and even in the street in front of the house. When it is thoroughly cured the heads of the grain are cut off with a knife, and the straws are carefully bound up and laid away in bundles. The heads are then spread out upon a piece of straw-matting and beaten with a flail. Another method of threshing is to take handfuls of straw and pull them through a mesh of iron needles. After the threshing is done the grain is taken up in a sort of scoop basket made of bamboo and shaken by one woman who holds it as high as her head, while another woman stands with a large fan, which she waves rapidly through the air, and which blows the lighter chaff away from the heavier grain as it is falling. The richer farmers have separators built upon a primitive plan and turned with a crank. People often winnow grain by pouring it from a scoop upon a fan 3 ft or 4 ft. wide, upon which it is tossed up and down gently so as to leave the chaff in the air when it falls. Another method of threshing is to beat the heads of grain upon a row of bamboo poles. Sometimes you see a whole family at this work.

Farming Implements.

Most of the farming implements are of a very primitive character, and many are homemade. The Japanese farmer makes his own flails and rakes of bamboo, and the handles of his hoes, spades and sickles in cold and stormy weather. The iron portion is fashioned at the nearest blacksmith's shop. These tools last for a lifetime, as they are kept with great care, and are often passed down from generation to generation. Everything is done by hand.

Removing the Combs.

If it were not for the stings many more people would keep bees than do now. And without a knowledge of the work, and very careful manipulation, there is no more certain of being stung than when removing the full combs. The following method is recommended by a writer in *The Canadian Bee Journal*, which agrees with our ideas of the work. This is the method he recommends:—"First give a couple of smart whiffs of smoke in the entrance, then blow smoke smartly under the quilt and the bees will rush downwards, then remove the quilt or cloth and for a moment rush the bees down with smoke; now is the time to lift the combs out quickly and shake off what bees you can quickly and lean the combs against the back part of the hive or any other convenient thing, or place them in a light box for the purpose. Now keep working lively and as soon as the last card is out, drop in and adjust the empty combs and close up the hive. All this must be done before the reaction or return of the bees sets in and the bees are still in good humour, and their zeal for gathering honey is not decreased by the presence of those empty combs and work goes on as usual. The process of brushing the remaining bees from the combs is pleasant and easy, for by this time they feel lost and lonely, and they are in no mood for self defense. The writer in question goes on with this work in the robbing season. He places a robber cloth over the comb box, and just when commencing operations fills said box with smoke; this keeps the robbers at bay. At such seasons he has an assistant to keep the air over and above the hive pretty full of smoke."

For the Maryland Farmer.

FARMERS' INSTITUTES.

BY A. E. ACWORTH.

The proposal to hold a pattern Farmers' Institute at Annapolis this winter is a wise one, and should receive the encouragement of every clear headed, intelligent farmer in the State. They have been held West for several years, and have achieved phenomenal success, having been addressed by men eminent in all the domains of farming, complex as it is. In one sense they are great experience meetings where each tells the methods by which he achieved success, and made farming pay, whether as breeder or feeder of live stock, dairyman or raiser of special crops, aided as they have been by the intellect and science of the Agricultural colleges and Experiment stations.

In another light they were schools in which farmers were taught and shown how little they knew, and were incited to think, study and read more.

In still another view they were great revival meetings where farmers were converted and changed from non-economical methods to other methods, to the positive benefit of their home lives. And far ahead the young and old alike saw that their profession, not pursuits, called for a wider course of education, embracing a thorough knowledge of more sciences than all the rest together, whether he be specialist, like horticulturist, or market gardener, or one like the ordinary farmer, who, in his life, is compelled to know something of all, or ought to.

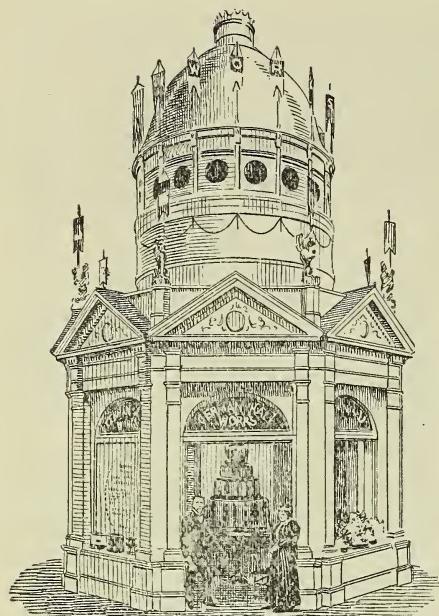
Now these Farmers' Institutes are valuable and ought to be encouraged as

the entering wedge to a revolution in our common school education, where chemistry, philosophy, botany, geology are now taught as accomplishments; but should be taught as having a most thoroughly practical avocation of life, the one that must feed if fed at all, more than half the world cheaply and well; for it is well known that starvelings beget starvation, whether animal or human. Good food and plenty of it at that, with good air gives a sound body and a sound mind that can do the most effective work, whether with hand or brain.

As the Mount Pisgah, then, from which to view a higher, more thorough education of farmers' sons and daughters in the Public schools, let us encourage these Farmers' Institutes liberally and freely with the absolute certainty that State aid to them will not be thrown away, but wisely spent in the cause of education, that needs to be placed on a higher plane in the common schools, where half teaching and a system of cramming, equally destructive to body and mind, is pursued. All education there is but preliminary, and ought to be given for the purpose of broadening the mind and leading it to think clearly that it may assimilate ideas, and from these move forward to higher planes of original research. Get rules, plenty of them, and learn how to use them. You may know the names of every tool that the dentist uses, but that will not make you one.

Less cramming, more digestion.

We need kindergartens everywhere, but no where more than in farming, of which these Farmers' Institutes are an ideal. A plenty of these and agriculture in the schools must come.



GERMAN KALI WORKS.

An Interesting Exhibit.'

One of the most interesting and attractive exhibits at the Atlanta Exposition was that of the German Kali Works, which occupied a prominent place in the Agricultural Building. One feature was the crude and manufactured products of the famous Stassfurt Potash Salts, in large glass jars. These potash salts (of which Kainit, Muriate of Potash and Sulphate of Potash are most important) are now used for fertilizing purposes and this exhibit had an especial interest for every farmer at the Exposition. The demand for this valuable fertilizing material has grown from year to year, until now over \$3,000,000 worth of potash are sold annually in the United States. A great part of this demand has come from the farmers of the Eastern and Southern States, where the land has

become poor and worn out by continuous cropping.

Another feature of the exhibit was the pictures. Two large oil paintings taken from actual scenes. One represents a heavily laden orange tree, which owes its load of golden fruit to liberal potash fertilization. Another shows a cotton field, on which the beneficial effects of Kainit as a preventive of rust and blight are made most apparent, by rows of unfertilized and fertilized cotton growing side by side.

The exhibit obtained the gold medal, which is the highest award, for being the best exhibit of the kind in the Cotton States Exposition, and of the greatest value to the agricultural community at large.

Comparative (Veterinary) Medicine.

How often valuable animals are lost for want of competent treatment. They cannot express their ailment by speech, hence only by what is known to the professional man as objective symptoms, symptoms made apparent to the observer by certain special action or by a certain peculiar appearance of the animal, can a disease be recognized. Upon correct observation and interpretation of symptoms will of course depend a rational conclusion or diagnosis of the disease. Good treatment or practice must be based upon a correct diagnosis. It can, therefore, easily be seen that good veterinary practice requires fully as much knowledge as does the practice of medicine upon the human body. We would, therefore, caution the owners of live stock to employ none but first-class talent when their animals are sick, else they will find themselves in the end, losers. We would call the attention of our readers to the advertisement of the "Maryland State Veterinary Medical Board" and call further attention to a list of the registered practitioners throughout the State, published in full on another page.

What a Creamery has Done.

The idea prevails, says the American Creamery, that a butter factory cannot be very successful unless it does a business of \$3,000 to \$5,000 a month or more. It is true that, within a certain limit, the larger the product the less the expense per pound. But with close business management even a small co-operative creamery can be made to pay. Thus the South County creamery at Hope Valley, R. I., which did a total business but slightly in excess of \$20,000 last year, paid its patrons an average of 3.3c. per Cooley space of cream, or a fraction over 12c. per lb. for the butter made. The expenses were 5½c. per lb. because of the small product, about 75,000 lbs. for the year or 237 lbs. per day. The average price received for butter was about 5c. per lb. less than the previous year, but patrons netted within 4c. as much, showing remarkable close management. Patrons were paid \$16,500, making a total of \$92,000 since the factory began business in 1887, besides paying all expenses, keeping the property in repair, allowing for depreciation, paying 5 per cent. interest on capital and keeping a little reserve. The factory is now operating on the Babcock test, the cream running from 14 to 22 per cent. butter fat and averaging about 18 per cent.

One of the dairymen, W. L. Clarke, made a record for 1894 that any dairyman might be proud of. He kept 16 Jerseys or grades that weighed under 800 lbs. apiece, averaging between four and five years of age. They dropped 15 calves, six being kept on the cows until fattened for veal, four were sold when a few days old, one was still born and four heifers were raised. Hay for breakfast, corn en-

silage for supper when not at pasture, with about 100 lbs. of grain daily (consisting of one part each of wheat bran, wheat middlings and chop, and two parts cotton-seed meal first half of year, last half wheat flour and Chicago gluten meal was substituted for middlings and chop) was the feed. Some milk was sold at the door for 1c. under peddlers' prices, pigs fed on skimmilk netted \$118.32 above the first cost of pigs and grain consumed by the four heifers raised, which with the receipts for cream makes a total of \$1,618.54, or an average of \$101.16 per cow. Had the milk all been used for butter, Mr. Clarke figures they would have averaged over 350 lbs. per head for the year. The manure certainly paid for the work involved and depreciation of stock, leaving over \$100 per cow for feed, interest on plant and profit. All dairymen can't get such prices, but these yields are within the reach of all who use similar methods and stock.

Agricultural shows were first held in Holland, and were introduced into England by King William of Orange. He made popular in England the idea of a periodical festival, which was made largely agricultural. The idea was followed up and elaborated by Sir William Temple in England, and Dean Swift in Ireland. At that time they had three-day shows. The first day was for athletics. The young folk were to run, wrestle, and dance for prizes. The second day was for manufactures, and the third day for live stock.

I love to hear all happy birds
Sing their spring songs of delight,
Except the Thomas cat bird which
Sings upon the roof at night.

TREATMENT OF FRACTURES.

Broken bones in cattle or horses are generally believed to be incurable or not worth treatment, and among non-scientific horse owners it is supposed that a broken bone will not unite, that equine nature is different from all others, and that a fracture will not in reality undergo those physiological processes which in other animals lead to repair. Cases coming under our own observation lead us to offer a few remarks on the subject of fractures in the animals of the farm, under which description most of the domestic animals are included; but we would rather say animals on the farm, and not the roadster, the vanner, or the horse doing town work of any kind, as the whole conditions are altered, and the fracture that the town practitioner may consider quite hopeless and recommend immediate slaughter, may on the farm and under other conditions be worth treatment and result in success. It is with the impression on our mind that a great many animals are slaughtered unnecessarily that we again bring before our readers a subject so old, yet of ever occurring interest, as there will always be fractures, and the more discriminating owners will make the least sacrifices and incur only the minimum of loss. Twice in one day have heifers with broken limbs come under our observation, and would have been slaughtered, producing but a nominal sum from the butcher, who rarely makes the mistake of overestimating the value of an animal, the owner of which is compelled to sell: indeed, this attitude of the butcher or buyer is one of the reasons, in our opinion, why treatment of fractures should be more often attempted in

the case of farm stock. Without entering into the technicalities of the different fractures, or using the language of the schools, we may point to a few situations and to some kinds of fracture which may be worth treatment. As previously stated, the conditions under which animals live are so widely different, that a case one man might keep and treat successfully would entail a heavy loss upon another. The stabled town horse, for instance, whose owner has no special facilities for cheap keep, will better end his loss by calling in the knacker, and make room in his stable for a successor. But on the farm the grass consumed will not be missed, and should the animal eventually recover it will seem to the owner all gain. The horse, while having the greatest value, is the worst subject for treatment, and for several reasons: He is not a good patient; he does not remain in a recumbent attitude for long together, as does the ruminating animal; he does not get up and down on three legs so well as a bullock, sheep or pig; and if the fracture be on a hind extremity the wasting of the abdomen is so great that he becomes a wreck. Again, we are not satisfied, like human surgeons, to see our patient out again with the assistance of crutches, or a walking stick, nor can we congratulate him on being but little lame; it is necessary that he should be as sound as he was before the accident, and as capable of labor, and here we have a difficulty that does not apply to the ox, pig, sheep or even dog, since the latter can do a good deal of work with three legs. In all cases of fracture or of dislocation, the services of a veterinary surgeon should be obtained if possible, but there are many readers of the Field

in different parts of the world where such services are unattainable, and there are cases at home where the animal is not of sufficient value to requisition a professional man from a distance of some miles. Of such cases we shall presently have something to say.

It is surprising that in these days of technical education, of lectures provided by county councils, illustrated by anatomical plates, etc., how very few of the farming class recognize the bones of animals, or have the least idea of their position. Such lamentable ignorance is now inexcusable. Many farmers who put in appearance at the lectures were disappointed to find they were not to be made into veterinary surgeons by a short and easy process, or put into possession of some valuable recipes that would enable them in future to dispense with the services of the regular practitioner. Questioned afterwards as to their bleeding cows from the tail, it has been found quite a general belief that the spinal cord extends throughout its length. In offering advice to readers of the Field, it is assumed that they have a general idea of the outlines of anatomy, and know the relative position of the principal bones, which will enable them to judge of what bone is broken, and to discriminate between a fracture and a dislocation. It may be taken as a broad rule that in fracture there will be elongation of the limb, and in dislocation shortening of it, while the deformity resulting will depend greatly upon the seat of injury. A fractured bone that is well covered with muscle, and having the broken ends in apposition, is a hopeful one. Many simple fractures of the humerus or arm bone, and of others of the "long round"

class, will unite well enough in the case of animals other than the horse, or in such as are not destined for labor. It will not be worth while to treat a fat or forward-in-flesh bullock for such an accident, but a youngster or poor "store" of no value to slaughter, will often make a fair beast if given time. Bones such as the humerus, femur, etc., are not in a position to be benefited by splints or surgical appliances, but the old-fashioned plan of applying either a blister or charge is not without its advantages. Taking the case of a shoulder (humerus), for instance, the swelling caused by a blister produces for a time the equivalent of a pad between the skin and the seat of fracture, and the additional soreness induces the patient the more quickly to take care of it. Herein individuals differ greatly. One will from the first exercise the greatest care in getting up and down, while another will be always getting into trouble, and causing fresh injury to retard the process of reunion. We have said that many bones will unite "well enough," by which it should be understood that they will be restored sufficiently to enable the bullock or the pig to feed and be fattened for the butcher, or the cow or the ewe, the sow or favorite bitch to be retained for breeding, although some deformity remains which is not fatal to the animal's welfare. If a long bone is broken into a joint, that is to say, in the direction of its length and not transversely, it may not be worth treatment, as much fever and possibly suppuration of the joint may follow; nor will it be worth while as a rule to treat a fracture with wound, where the bone is either shattered into a number of fragments or is protruding through the skin.

There are breakages below the knee and hock, especially among young stock, that are very hopeful if promptly taken in hand and the injured limb put into such splints as can be obtained. Nearly every amateur can be relied on to select splints sufficiently strong, and to make them secure enough, though he have nothing but a hedgerow or the bark of a tree from which to choose his appliances ; but the fault he commonly commits, and which the trained surgeon avoids, is putting on anything that will cause damage when the inevitable swelling follows. It is not sufficient that the broken ends of a bone be brought into apposition and the limb supported in its proper position, but the parts should first receive a padding of some compressible material that will minimize the risk of sores, and do away with the necessity of removing the splint too soon. If the hedge surgeon—and we may call him this without giving offence, as we should to an unqualified practitioner of the law—has no better material to choose he may find a coat lining or spare a stocking with which to build a foundation for his splints. When we were boys and in the days of muzzle-loaders, we found the insides of hats and caps and coats provide many a wad in cases of emergency, and we have resorted to leaves for the same purpose, and as a surgical aid in the tropics since.—*The Field.*

Land for Onions.

The black vegetable soil commonly known as muck is the best for this vegetable. It must, however, be thoroughly drained and well manured, or—which is better—fertilized, which has the advantage of preventing weeds, that are the worst pest of the onion grower, and very

costly to get rid of. Absolutely clean ground is indispensable to success of onions. The safest method is to plant the sets, or small onions of the previous year, which are sold by the seedsmen. Or they may be grown by any one by sowing seed thickly, at the rate of sixty to seventy pounds of seed per acre in the Spring. By July the tops will dry, when the small onions are gathered and dried and kept dry until the Fall, when they may be planted where the Winter is mild, and will make large onions by the middle of the next Summer. Ten bushels of sets will plant an acre, set in rows a foot apart, and two inches apart in the rows. Or seeds may be sown in the Spring and the onions gathered in the Fall. Seven pounds of seed are required to sow an acre in rows a foot apart. It is necessary to keep the rows wholly free from weeds by repeated hand weeding.

The Maryland Veterinary Hospital. 1311 to 1321 HARFORD AVE.

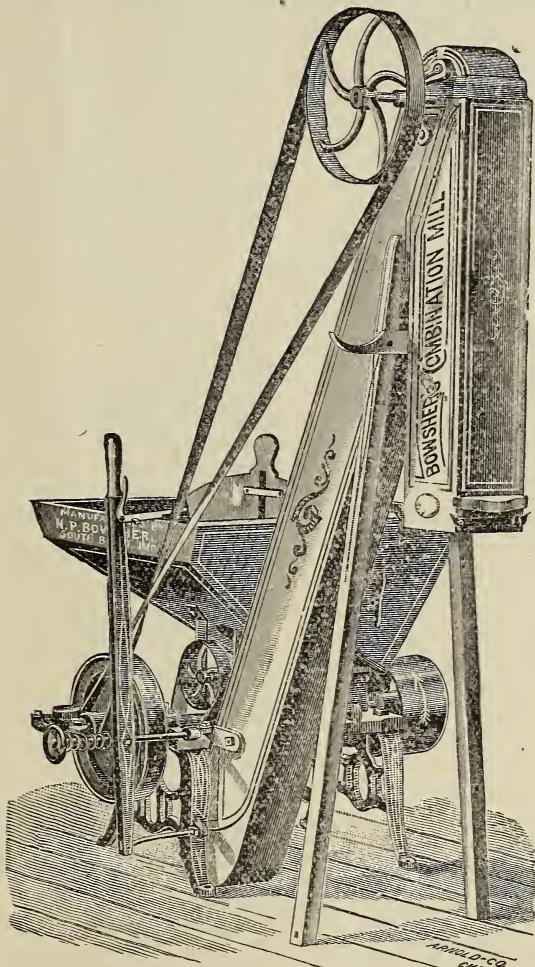
The above hospital for diseased and disabled horses, enjoys the largest connection of any establishment of the kind in the South. This is owing in great measure to the knowledge and skill possessed by Dr. Spranklin, the proprietor; but the advantage this gentleman possesses in his facilities for water bathing and soaking for horses at his Bay Side Stock Farm, where he has five hundred acres of land and access to the salt water of the Chesapeake Bay, have had much to do with it, as the cures effected by this treatment have been simply marvellous. Dr. Spranklin boards and gives professional care to horses for the small charge of \$10 per month.

Over 6,500 ears have been contracted for by Phil Armour, the Chicago packer, to transport the wheat he has been buying.

THE BOWSHER MILL.

We illustrate herewith a very popular size of the Bowsher Mill, with elevator, manufactured by N. P. Bowsher, South Bend, Ind. The elevator is not necessarily a part of the mill, but is a very

and practically do away with the undesirable end-pressure in the step box. Another advantage gained by these grinders is the fact that they will not strike together should the mill run



handy attachment that can be had when desired. Probably the most important distinguishing features of the Bowsher mills are their conical shaped grinders. These do the work close to the center of the shaft; are, therefore, light running;

empty. The Bowsher mills do all kinds of feed work, including ear corn, oil cake and all small grains, and are built in sizes to meet the whole range of requirements, from 2 horse power, up. Mr. Bowsher will send catalogue upon the asking.

LIST OF THOSE LEGALLY REGISTERED TO PRACTICE VETERINARY MEDICINE AND SURGERY IN THE STATE OF MARYLAND IN ACCORDANCE WITH CHAPTER 273 ACTS OF THE GENERAL ASSEMBLY, 1894.

PUBLISHED BY ORDER OF "THE STATE VETERINARY MEDICAL BOARD" AS PROVIDED FOR IN SECTION 7 OF THE SAID ACT.

A. W. CLEMENT, V.S.,

Secretary,

916 Cathedral St., Baltimore, Md.

The following are regular graduates of veterinary colleges, and are registered as provided for in Sections 8, 9 and 10 of the Act,

BALTIMORE CITY.

Ament, Lawrence
 Barron, Thomas A.
 Born, Herman A.
 Bye, Henry H.
 Clement, Albert W.
 Cornelius, George C.
 Cottman, Frederick S.
 Cornelius Thomas G.
 Dougherty, William
 Felber, Frederick L.
 Francis, Thomas E.
 Grogan, Joseph P.
 Hedricks, Horace A.
 Hickman, Lawrence, Jr.
 Hoffman, Daniel R.
 Hill, Alexander S.
 Lloyd, Samuel E.
 Martinet, William H.
 Meisner, Harry A.
 Plummer, Edward Jr.
 Siegmund, Wm. C.
 Sprankling, Thomas M.
 Stewart, John W.
 Stewart, Walter J.
 Wall, Frederick A.
 Ward, Robert

WASHINGTON D.C.

Achison, Harry W.
 Adamson, John H.
 French, Cecil
 Pointon, W. R.
 Robinson, C. Barnwell
 Robinson, Jesse D.
 Walmer, Elias S.
 Adams, Herbert S, Centreville, Maryland

Aikenhead, John, Easton, Maryland
 Harston, Campbell S. Westminster, "
 Hassall, Albert, Bowie, "
 Jarman, George A., Chestertown, "
 Mackie, Frank H., Fair Hill, Cecil Co,
 Paulet, Stuart E., Catonsville, Maryland
 Riegle, John W., Emmitsburg, "
 Schaub, E. K., Lancaster City, Pa.
 Sill, Gurdon, Gurdon G., Rising Sun Cecil Co
 Smith, George A., Frostburg, Md.
 Smith, Robert W. Frederick, "
 Tatum, Wm. R., Brighton, Montgomery Co.
 Windolph, John L., Darlington, Harford Co.

The following are registered as non-graduates, as provided for in Section 8 of the above Act, they having presented sworn affidavits that they had been engaged in actual practice for five years prior to the passing of this Act.

BALTIMORE CITY.

Airey, James, H. T.
 Airey, Tobias
 Baum, Thomas F.
 Bode, William
 Boone, Edward Burley
 Clayland, Thomas
 Conroy, Daniel
 Crawford, Dixon L.
 Dentry, Henry H.
 Fink, Wm. P.
 Foote, Joseph S.
 Gary, Jacob S.
 Hall, Franklin
 Keller, Daniel E.
 Keller, Edward B.
 Keyser, Wm. Chas.
 Linthicum, Geo. W.
 Long, Chas. G.
 Lyon, Chas. L.
 Lyon, Samuel Z.
 Moore, Hy. Wm.
 Moseley, David C.
 Muth, John
 Myers, Thaddeus S.
 McClelland, David P.
 Pirie, Wm. Morris
 Plummer, Edw.
 Shelley, Wm. Abraham
 Vohden, Samuel
 Voltz, Herman
 Weidner, Adam John
 William, Thos. W.
 Albaugh, Andrew P., Dennings, Carroll Co
 Allen, Charles Henry, Havre de Grace
 Baldwin, J. T., Sr., "
 McVey, Joseph
 Anderson, Andrew L., Harford Co.
 Angel, George, Walkersville, Frederick Co
 Cruant, John Wm. "
 Fink, Edward "
 Link, George, "

Ash, Wm. Calvin, Hagerstown
 Cosen, Henry, J. Jr. "
 George, Henry T. "
 Hollingsworth, Gibson R. "
 Mondell, Wm. B. "
 Bailey, Nathaniel A., Freeland, Balto. Co.
 Ball, John, Govanstown
 Bankard, Francis H., Westminster
 Barton, Jeffery, Washington, D. C.
 Mater, Geo. W. "
 Beachy, Samuel J., Grantsville, Garrett Co.
 Birney, Wm. David, La Plata Md.
 Bready, George W., Nutwood, Montg. Co.
 Coates, Wm. A., Mt. Washington, Balto. Co.
 Collins, John, Stockton, Worster Co.
 Crockett, Hugh G., Black Rock, Balto. Co.
 Dennis, John Graham, Perryville, Cecii Co.
 Drebbs, David L., Manchester "
 Earle, Hy. Wm., Carlton P. O., Harford Co.
 Ebbling, Gabriel K., Denton, Caroline Co.
 Fogle, Denis H., Union Bridge, Md.
 Fraley, Augustus, Frederick City
 Feighley, Byron, "
 Kline, Josiah T. "
 Strasberger, John W. "
 Scyleurk, Samuel K. "
 Garman, Jacob R., Cumberland, Md.
 Grossnickle, Cyrus L., Taylorsville, Carl. Co.
 Haneck, Geo. W., Pocomoke City.
 Hassenger, W. T., Oxford, Md.
 Henderson, Alfd N., Black Horse, Harfd. Co.
 Hicks, Jasper N., Cearfoss, Washington Co.
 Highberger, Jacob Tyson, Williamsport, Md.
 Hitchcock' Nelson A., Taney Town, Md.
 Jump, James H., Centreville, Md.
 Lambert, Albert E., New Windsor, Md.
 Long, Charles, Washington Co.
 Mace, Chas. R., Mountrose, Montgomery Co.
 Martin, Luther A., Hampstead, Carroll Co.
 Merritt, James Stewart, Warwick, Cecil Co.
 Mercer, Wm. Fenton, Mt. Pleasant, Md.
 Miller, Otho W., Keedysville, Wash. Co.
 Parson, Elijah B., Snow Hill, Worcester Co.
 Smith, Alvy, Wm. "
 Pittenger, Milton A., Thermont, Fred'k Ca.
 Poe, Charles Edgar, Leitersberg, Wash. Co.
 Poffenberger, Simon M., Williamsport, Md.
 Poulsion, Cornelius Lee, Medford, Carroll Co.
 Robinson, Reynolds, Pratt, Allegany Co.
 Ruby, Joseph, Beckleysville, Balto. Co.
 Scarff, J. A., Upper Cross Road,
 Schaub, J. C., Lancaster City, Pa.
 Seaman, R. T., Cumberland, Md.
 Sermon, Geo. E., Salisbury, Md
 Smith, Charles J., Charlesville, Fred'k Co.
 Smith, John H., Glenwood, How'd Co.
 Steed, John J., R., Friendly P. O. Md.
 Thomas, George H., Boonsboro, Md.
 Thome; John, Canton, Balto Co.
 Tracey, Cornelius G., Mt. Carmel, Md.
 Tyler, Thom. B., Yellow Spring Md.
 Vaughan, J. H., Mayberry, Md.

Warfield, Samuel T., Grave Run, Md.
 Weaver, Frank R., Chestertown, Md.
 Wiederhalt, Jos. C., Cearfoss, Delaware
 Williams, Amos, Woodbury, Md.
 Wilson, Thos. M., Maryland Line.
 Wilson of Bird, John T., Jerusalem Mills

The following are registered by examination as non-graduate practitioners of less than five years prior to the passing of the act, as provided for in section 8 :

Coseus, Henry J., Sr., Hagerstown
 Wooden, Morris, Washington, D. C.

Cost of a Pound of Butter.

In the dairy contest at the World's Fair butter was made at a cost of about 12½ cents per pound. The Minnesota Experiment Station has since made it a cost of 10 cents per pound. Many leading dairymen figure the cost at about 12 1/4 cents. This includes the cost of fat at the market price, but also the cost of labor, interest on the investment, etc. You hear dairymen talk on every hand when the price of creamery butter gets below 20 cents per pound that there is no money in the creamery, for when the 4 cents per pound for making it is deducted it brings the price received nearly or quite down to the cost, that is, figuring the cost as above, at 10 to 13 cents. But there is one thing, and a very important one, too, that they seem to overlook. In making a pound of butter cost 12 cents we have received pay for our crops at market value and have sold them to our cows right at home. We get the cash for our crops at a market value when we sell butter at the cost of production (12½ cents per pound), and we have saved ourselves the trouble of drawing those crops to market. A man can better afford to sell butter at the cost of production than he can corn or oats or wheat when the cost of a pound of butter includes the feed and labor at their

market value, as it does in the above estimates, because he has already received his profits on his crops in the 12½ cents per pound for butter. This explains why the dairy farmer, if he understands his business, is more prosperous than his neighbour who sells his hay and grain instead of feeding it to good cows right at home. Do you ever stop to think that some farmers are selling their very farm, load by load, in hauling their crops to market every year and putting nothing back on their farms? The basic principles of dairy farming, and more especially butter making, are correct, for it consumes the products of the farm and returns the manurial elements of those crops to the soil after the marketable dairy products have been taken out. A ton of gilt-edge butter does not contain over 50 cents in value in fertilizing elements. Dairy farming is founded on a rock, and the farmer who has energy and knowledge enough to keep a good herd of cows and keep them as they should be kept, will surely be successful, and he will leave a future generation a soil that is capable of feeding the human race at a profit.—*Hoard's Dairymen.*

One of the most interesting studies connected with forestry is the succession of forest growths. It is a common observation that when a forest disappears it is generally replaced by one of a different species. Close observers, however, note that there is a great regularity in the sequence—so great, indeed, as to take the events out of the channel of a mere struggle for life, and to place them in the great chain of foreknowledge and design, which is now becoming more and more perceptible to the scientific mind. There

is a struggle for life in which the weaker is displaced; but the conqueror could never have conquered, or have maintained the conqueror's hold, but for his victim having had a footing before him. In the Rocky Mountains of Colorado, the first tree to take possession of the rocky heights is the aspen poplar. No other tree attempts possession of the soil. No sooner, however, does it spread over the wide acres, than the twisted pine (*Pinus contorta*) rushes in and contests the ground, finally conquers. No sooner does it claim the ground for itself than various species of fir appear; and before the cycle closes we have forests of fir only where once nothing but aspen clothed the ground. The subject is still more interesting in those parts of the world where deciduous trees prevail, because of their greater number and variety of species. Hansen has recently contributed to *L'Exploration* a paper on succession in Danish forests. There, as in our Rockies, the aspen first stakes its claim on land no other tree cares to occupy. It scarcely begins to flourish, however, before the birch envies it the possession, and drives it out. If the oak then has a chance, it will drive out the birch. The beech then follows, and challenges the oak, which has finally to succumb. The beech, indeed, is "the terrible child" of these Northern forests.

Drive Good Stock.

We have for a long time judged the farmer by the horse he drives. This animal, more than any others, indicates the condition of the farm. Show us a man with a fat, sleek span of spirited animals, and we will show you a farm in good tilth, neat improvements and everything wearing a prosperous look.

Weeds.

There are no thieves that steal so quietly, and yet so effectually from the farmer as the weeds and thistles, which he sometimes cultivates in his fields or allows to grow in his pastures and fence rows. He counts these no part of his seeding and hence he is apt to neglect them, except so far as they interfere with the growing crops. In cultivating his corn one of his troubles often is to keep down the weeds, for these in good ground that has been well manured and plowed are apt to grow in the early part of the season faster than the corn. They often have their roots started before the corn is planted and unless they are nipped in bud they soon become troublesome—but if allowed a fair chance it soon becomes a race between them and the corn ; which shall have the choice show' of the soil food. The farmer's care or his pride mostly leads him to destroy the weeds and assist the corn ; but this he does under a continual protest ; as if the weeds had no right of possession, but the truth is he has given them an equal right with the corn and often a pre-emption right. They have been in the field all the winter, and this by the aid and good will of the farmer. This has been done by allowing them to grow either in his or some other adjacent field, or along the fences on his farm during the last year : until they produced and ripened seed, and in their own legitimate way scattered them for this year's crop, and they are but using their natural power of self-protection.

The farmer has largely the control over these thieves of the riches of the soil, cannot better be illustrated than by the different modes of dealing with them by

two farmers, which we witnessed this summer in their efforts to destroy them. The first we shall call Mr. A., and his mode of treating them can be understood when we say that as we rode with him around his farm in the early harvest, and before the weeds and thistles had ripened we met on the road two boys with heavy hoes, cutting down close to the ground all the annual weeds and digging up all that were biennial or perennial, and piling them in heaps to dry and be burned—coming on a little further we were accosted by two other boys at work in a field with the information that there were “ lots of them, but they were cutting them clean.” We found upon inquiring that this farmer was making a raid upon the invaders before they could get in their work for the next year—and we have no doubt of the success of his plan. The other farmer, Mr. B., we passed when we were riding along through the country in the latter part of September, when the weeds had made their full growth undisturbed, and had the seeds all ripened and dry.

Mr. R. was apparently trying to rid his pasture land, into which he had turned his sheep, from thistles and burrs and Spanish needles, to save trouble with his wool next year. He was armed with an old scythe and a hoe, or old ax. When he first attracted our attention he was beating with heavy strokes at a mammoth thistle, dry and hard with all the heads ripe, and ready to send the seeds flying and at each stroke hundreds of seeds took to their wings and filled the air.

Plenty of our farmers can take the hints given above and surely they are very wise.

The darkey who steals corn from the pig is turned over to the officer, even at

considerable expense. The pig that steals corn from the mule's trough or from the crib, is placed in a jail pen and cut off from his associates at the cost of extra labor in feeding and watering.

But, whoever notices the big weeds in the pile that are eating up the food which would easily make a bushel of corn or ten pounds of cotton?

How often has a field of corn had its productive capacity lessened ten to twenty per cent by a rapid growth of grass and weeds just at that critical moment when the corn needed all the food possibly

available. Weeds may possibly do good in the fall if plowed under before they seed. Some grasses are good to stock, but all of them are expensive—expensive tenants when grown among the crops. Better reduce the family and allow no seed to mature.—H. R. G.

When you get into a tight place, and everything goes against you till it seems as if you could not hold out a minute longer, never give up then, for that's just the place and time that the tide'll turn.—Harriet Beecher Stowe.

Baltimore Business Directory.

Accountant.	Expert Accountant. Wm. F. Rogers, 323 N. Charles St.	Cole's Hotel, Newly Furnished, Rates Moderate Stables. N.W. Cor. Hillen & Forest Sts
Agricultural Implements.	Seeds, etc., Griffith & Lytle, 516 Ensor Street.	Carrollton Hotel. Rates, according to location of Rooms, \$2.50 to \$4.00 per day.
Attorney at Law.	Broker in Business Opportunities, G.W. Hume Craig, 319 Law Bldg	Maltby House. American and European Plan. Pratt Street, near Charles.
Auctioneers & Commiss'n Mer's.	Merryman & Patterson, 11 S. Charles	Hatter. James E. Connolly. S. W. Cor. Eutaw and Saratoga Sts.
Baltimore Transfer Co.	205 E. Baltimore St., Passerenger, Baggage & Freight	House and Sign Painters. Pole & Wilson, Sharp and Barnett Sts.
Business College	School of Shorthand, Typewriting. C. E. Barnett, 102 N. Charles	House and Sign Painters Phillip Endlich, 201 E. Saratoga St.
Barber's Supplies.	(Largest House South.) M. Tregó & Co., 415 E. Baltimore	Leather & Shoe Findings. J. A. McCambridge & Co. 118 S. Calvert St.
S. L. Lambert Co.	Agricult'l Implements, Seeds, Fertilizers, &c. 124 Light St.	Lumber Dealers. Thos. Matthews & Son, Canton Avenue & Albemarle St
Grain Drills.	Empire Drill Company, W. H. Brown, Manager. 414 S. Eutaw Street.	Patent Fire Pots. Blow Pipes, Burners, &c. The Hull M'f'g Co., 800 E. Pratt.
Grain Drills.	Bickford & Huffman Co., B. G. Thomas, Mgr., 408 S. Eutaw St.	Pattern & Model Makers. Leach & Orem, 210 N. Holiday St.
Carriage Builders.	Martin L. McCormick & Bro. Madison and Boundary Aves.	Plummer and Gas Fitter. J. M. Foster, 100 Clay St., cor. Liberty.
Chemicals & Fertilizers.	R.J. Hollingsworth, M'frs' Agent 102 S. Charles St.	Printers Rollers & Roller Gum. J. E. Norman & Co. 421 Exchange Pl.
Mass. Benefit Ass'n,	P. L. Perkins, General Agent, Fidelity Building.	Sails, Awnings, Tents and Hay covers. (Old canvas) Stevenson & McGee, 212 Light
Engineers & Machinists.	C. L. Gwinn & Co., 709 E. Fayette Street.	Sample Trunks & Cases. L. Gram, Manufacturer & Repairer, 7 N. Sharp St.
Funeral Directors,	Wm. J. Ticker & Sons. (Hacks Supplied.) 221 S. Eutaw Street.	Veterinarian. Wm. Dougherty D.V.S. Graduate o Veterinary Medicine. 1035 Cathedra

MARYLAND FARMER,

H. R. WALWORTH, Editor.

The MARYLAND FARMER is published Monthly at Baltimore, Md., at the subscription price of 50c. a year in advance. New subscriptions can commence at any time during the year.

Payment for the Maryland Farmer when sent by mail should be made in a Post Office Money Order, Postal Note or Express Money Order. When neither of these can be procured, send the money in a registered letter. All postmasters are required to register letters when requested to do so.

Always give the name of the post office to which your Magazine is sent.

CONTRIBUTIONS:—All are cordially invited to express their opinions on any subject, give helpful talks to the inexperienced, and ask questions in any department.

All letters should be addressed,

FARMER PUBLISHING CO.,

210 E. LEXINGTON ST.,

Correspondents are specially requested to write their communications on separate slips of paper and only on one side, signing name and address.

Advertising ratesent on application.

Entered as second class matter at Post Office, Baltimore, Md.

1st Month. JANUARY. 31 Days.

PHASES OF THE MOON.

	D. H. M.	D. H. M.
Last Quar.	7 10 21.9 A.M.	First Quar. 22 9 42.8 P.M.
New Moon	14 5 19.4 P.M.	Full 30 3 55.3 A.M.
Perigee	3 11 P.M.	Apogee 19 11 P.M.
Perigee	31 9 P.M.	

Ephiphany, January 6.
Venus will be brightest on January 3.
Mercury, January 22.
Jupiter, January 23.

REMOVAL.

The Office of the MARYLAND FARMER has been removed from 213 N. Calvert to 210 East Lexington Street, opposite the Baltimore Post Office. The January number is issued from this new location, known as the Vansant Building. The accommodations are more ample for the work, and the business department and mechanical operations are brought into closer proximity. There will be a little delay in the issuance of this number occasioned by the confusion incident to our removal; but we shall make amends for this in the more prompt issues of the future. Those wishing to transact any business with this office, to subscribe or

pay their subscriptions, to advertise or pay for advertising will call on, or address the Maryland Farmer, 210 East Lexington St., Baltimore, Md.

THE NEW VOLUME.

We begin Volume XXXIII of the MARYLAND FARMER, with a feeling of decided encouragement; for we realize that it is true, as many of our subscribers and friends tell us, that this Journal is becoming a necessity—not only in the homes of farmers, but in the offices and homes of all our public men, our legislators and merchants, our manufacturers and dealers, our railroad officials and bankers, our lawyers and scholars. We have been quietly but earnestly endeavoring to bring it into such close relation with all that interests, in the current events of the time, that its utterances may be felt by all. Its power is recognized more now than ever before, because it speaks with decision in behalf of every movement which has the welfare of the farmer in view. We have felt called upon several times in the past to speak strongly and positively, even where our

pecuniary interests would have counselled silence; but we do not regret the sacrifice we made to principle in those cases, and we shall never hesitate to give our word for the farmer in the future, using language which cannot be misconstrued or misunderstood. It is true we need all the money we can get to put into the MARYLAND FARMER, to still further improve it; but we do not wish money at the expense of honor, justice and the prosperity of our farmers. We wish all, who see the uprightness of our straight and manly course in behalf of everything which tends to the good of the people, to help us—by bringing new subscribers, by influencing their friends to advertise with us, and thus enable us to wield a still stronger and better influence upon the State and country for which we are laboring.

AGRICULTURAL EDUCATION.

We have had occasion frequently to express our conviction, that the subject of Agriculture should be made prominent among the studies in all our public schools. We have given the facts of its prominence in the schools of Germany and the methods there adopted to teach it, even in the largest cities, in a thoroughly practical way. We have even given a specimen chapter of an elementary school lesson, showing how it might be adapted to interest small children as well as those of larger growth. All these things only exhibit the interest we take in this subject.

We are glad that it is becoming a matter of popular talk, and that many are earnestly advocating its introduction into the common public schools of our State.

It is to be hoped that their advocacy may result in its introduction into our schools in an efficient and practical form. We must say here, that we have no faith in the teaching of the host of foreign and technical terms — the “isms” and “ologies” introduced by “mock scientists” and “would-be-pedagogues”—to the rising generation. We read sometimes with feelings of disgust, the bulletins of stations where agriculture is lost and the English language is degraded by useless and worse than useless scientific nomenclature, as hard to understand by ordinary mortals as are the hieroglyphics of Egypt. We would have agriculture taught in our schools in plain English words, even though it should take a dozen English words to make clear what is meant to be conveyed by a single “outlandish” term.

Even if we cannot have our wish in this respect, however we will rejoice to have agriculture introduced as one of the common school studies in any shape; and then we will use our best endeavors to keep down as much as possible the tendency to scientific technicalities—which thus far has only tended to the undoing of the farmer’s prosperity.

The argument that it will be hard to find competent teachers for this branch of study, will only hold good for a very few years; for there are hosts of earnest young men and young women who will qualify themselves thoroughly as soon as the demand is made for them. Give us agriculture in our schools, make it plain and practical, and large results for our country may be insured in the near future.

FARMERS' INSTITUTES.

We were present at the meeting of the Agriculturists of our State where the proposition was endorsed to petition our Legislature to establish a series of Farmers' Institutes, to be held in the various counties, and to appropriate \$5,000 towards the expenses. We have advocated these Institutes, for we are well aware of the great good they have accomplished in other States; and it was a source of pleasure that we were enabled to offer a resolution that met general approval, that a bill be formulated and introduced during the first sessions of the Legislature to secure these much desired Institutes. We hope no delay will occur in the passage of this bill, and that the farmers of Maryland may very early recognize the fact that the present Legislature intend to give them all they can justly demand.

OUR GOVERNORS.

Gov. Frank Brown retires from his position as Governor of Maryland this month. He was elected by an unprecedented majority to this station, and he has attended to its duties with a faithfulness which has won the admiration of all the citizens of our State. The farmers were disappointed in two or three of his vetoes of their favorite measures; but they give him the praise even here of a conscientious discharge of duty, although in the heat of disappointment they may have thought otherwise. He passes out of the political field for the time being, with many honors bestowed upon him of which he was well worthy. We may give him the praise of saying, that he in no case considered his personal well-being when called upon to accept any responsible action, which his official

position demanded. As a candidate he was an independent democrat, and this position he continued to occupy to the end of his official life.

Gov. Lloyd Lowndes succeeds Gov. Brown. He is a devoted republican; but was elected by a wholesale stampede of democratic voters, who wished thus to rebuke their leaders. Gov. Lowndes, however, stands towards the farmers of our State committed to the advocacy of many of their principles, and they will look to him to sanction such laws as they deem necessary for their just protection and which the present legislature are pledged to enact. His past, being a promise of his future, leads us to place a large faith in him, that he will fulfil as far as possible all the demands made upon him by those who have elected him. His acts will be weighed by both political parties and he will have much and searching criticism to endure. May he prove himself the Governor of the people.

An Electric Plow.

A recent report from Leipzig gives interesting particulars of the use of an electric plow not only in farming on a large scale, but in small husbandry, and at the cost of one dollar and twenty-nine cents per acre, against two dollars and seventy-four cents, the cost of doing the work with oxen. As compared with the expense of working the steam power, the working expenses of the electric plow amount to less than one half.

The interest on money is so high in Siam that when a man once gets into debt, the most he can possibly hope for is to pay the interest on what he owes by the hardest work.

For the Maryland Farmer.

MARYLAND ITEMS.

Feed the birds.

The town of Delta is lighted by street lamps.

Hon. Harry M. Clabaugh has been sworn in as Atty-Gen'l of Maryland.

A Keeley institute has been started in Cumberland.

The George's Creek region shipped a total of 23,072,048,08 tons of coal last year.

All the Baltimore banks declared their usual January dividends.

Gov. Lloyd Lowndes was inaugurated January 8th with imposing ceremonies.

Thirty-four fires occurred in Hagerstown in 1895.

The Baltimore banks hold 2,500,000 in gold.

City Collector Hopkins collected \$500,000 in Taxes in December.

Gov. Brown recommends the enlargement of the House of Correction.

Baltimore, says acting chief engineer Kenly, has nearly 600 miles of water mains

A hog weighing 545 lbs. was butchered at St. Joseph's Academy.

Cambridge will be lighted with electric lights.

The Hopkins place savings bank reported balance on hand Jan. 1, 1896, \$2,609,-175,99.

There were 312,773 tons of coal shipped over the Chesapeake and Ohio canal during the season just closed.

The Savings bank of Baltimore had a balance of \$20,655,217,23 on hand Dec. 31, 1895.

The Metropolitan Savings bank reported a balance on hand Dec. 31, 1895, \$2,145,870,66.

The Central Savings bank at the close of business Dec. 31, 1895, had \$4,750,307,53 in funds as balance.

Comptroller Smith reported \$704,568 in State Treasury at the close of the year Sept. 30, 1895.

Bishop Paret will make a visitation to Emmanuel church, Belair, Sunday morning, Feb. 16.

Mr. Richard Dallam, Gov. Lowndes secretary of State, will, with Mrs. Dallam, spend the winter in Annapolis.

In 107 years there have been nineteen Eastern Shore U. S. Senators, and all of them good men.

The Crawford Works at Hagerstown have an order for 10,000 bicycles from one firm in St. Louis, Mo.

The Susquehanna tide water canal will again be offered at public sale Jan. 25, at York, Pa.

Shipments of coal from Cumberland to Georgetown, via Canal have closed for the winter.

William Cabell Bruce, Senator from Baltimore, was elected president of the Maryland Senate.

Mr. Sydney E. Mudd, of Charles Co., was elected speaker of the House of Delegates.

A factory to make butter dishes has been started in Hagerstown. About 20 hands will be employed.

The Eutaw savings bank of Baltimore had net amount of funds Dec. 31st, \$13,-870,000,47.

The Border State.savings bank showed a net balance of \$602,277,21 on hand Dec. 31st, 1893.

A Coon supper was given at the Worcester house, Snowhill, on the evening of Dec. 24th.

The Venezuela commission has rented as their permanent quarters rooms in the Washington building of the "Sun."

The large hippodrome on the stock farm of Mr. William M. Singerly, near Elkton Cecil Co., has been completed. It will be used for training race horses.

Mr. John J. Verney, a well-known farmer of Howard Co., was thrown from his horse Jan. 9, near Ellicott city and died from injuries.

The National Bank of Baltimore rounded its century of business Dec. 24, having been chartered Dec. 24, 1795. Baltimore had 20,000 inhabitants when the bank was chartered. The bank became a National bank July 13, 1865.

Mr. Upton W. Dorsey, of Howard Co., is a candidate for the position of Manager of the House of Correction, now held by Mr. Jesse Moore.

The annual report of the Police Dep't Balto. city, shows that 30,193 arrest were made during 1895. Principal charges disorderly conduct.

Senator Dryden, of Somerset County, says he will prepare a bill for the abolition of the State oyster navy, and give each county police supervision to run beds.

Mr. Henry Tieman, the well-known dealer in fancy pigeons, imported in December five pairs of handsome carrier pigeons from a breeders loft at Sunbury-on-Thames, England.

The board of managers of the Balto. Co. agricultural society elected the following officers : President Frederick Von Kapff ; vice-pres't Samuel M. Shoemaker ; secretary Hy. C. Longnecker.

Monumental city homing club held its meeting at 213 So. Howard St. and elected these officers : President, Louis Debus, Jr.; vice-pres't John Lessner ; secretary, J. Irvin Nagle ; racing sec't, John Meekins.

Mr. William H. Michael, a prominent farmer of Harford Co., has a fine herd of seventeen Jerseys, in first-class, order. The milk is skimmed with a De Laval No. 2 baby separator.

Petitions have been sent to Congress asking for the establishment of a life saving station on the Atlantic coast, between Ocean City and Fenwick Island light house.

It is said that the supply of decoration holly for the Christmas holidays was exhausted in the lower part of Queen Anne Co. Every season Christmas greens are in greater demand.

President Gilman of the John Hopkins University in his 20th annual report to the trustees, stated that during 19 years a total of 2,738 students have been enrolled at the University, of whom 459 gained the degree of Bachelor of Arts, and 358 the degree of Doctor of Philosophy.

At a recent meeting of the Talbot Co.

Fair Association, the old board of directors were re-elected as follows : Joseph B. Harrington, Captain Hedge Thompson, Charles E. Nicols, Dr. Chas. Lowndes, John K. Caulk, Samuel A. Harper, Edward Woodall, John M. Elliott, Henry Rieman, Alfred J. Wilson, John C. Bartlett, M. M. Higgins. Sect'y Higgins' report showed receipts for the past year \$9,855.49, including a balance of \$281.58 for 1894. The Talbot Co. Association will borrow \$4,500 to pay off a mortgage of \$3,000, &c.

President Cleveland appointed two Marylander's on the Venezuela Commission Judge Richard H. Alvey, chief judge of the Court of Appeals of the District of Columbia and President Dan'l C. Gilman of the Johns Hopkins University.

At a recent meeting of the Gunpowder club the following topics were discussed : abolition of the compulsory hay weighing, the cost of raising and breaking colts, the comparative value of corn fodder and hay, and the wintering of stock.

The old and popular firm of Joel Gutman & Co, dispensed their usual Christmas gifts to their employees on Christmas eve—this has been a custom of this house since its foundation years ago by Joel Gutman. The house of Joel Gutman & Co., enjoys a large custom and deservedly so. It has recently enlarged its store to meet increasing demands upon its space. Every Christmas day the grave of the founder is decorated by the employees.

"The Stone Industry in 1894," written by Wm. G. Day, and issued by the U. S. Geological Society, states that "The result of an exceptionally complete canvass of the limestone producing sections of Maryland has revealed a much greater activity in limestone and lime production than has heretofore been supposed to exist. Frederick county yields two-thirds of the entire output ; the rest comes from Baltimore, Allegany, Washington, Carroll and Howard counties. The value of the product in 1894 was \$672,786, almost all of which is the value of lime made."

BALTIMORE'S VOLUME OF TRADE, &c., FOR 1895.

The trade of Baltimore shows an increase in volume as compared with 1894.

The National Bank Capitalization of Baltimore is \$13,243,260. Surplus and undivided profits, 1895, \$4,719,218. Loans and discounts, \$32,484,073. Deposits, \$24,628,282. State Banks—Capital, \$1,175,000. Surplus, &c., \$399,905. Loans and discounts, \$2,628,302. Deposits, \$2,020,120. Bank clearings for 1895, \$695,707,281.

The rubber trade increased over 1894, it is estimated, from 25 to 33 per cent. Prices in advance over the previous year.

Receipts of Maryland tobacco were 28,085 hogsheads, being about 25 per cent. smaller than the year before. During the year a number of farmers of southern Maryland undertook to ship tobacco direct to Bremen themselves. The venture was a failure and it is said resulted in considerable loss. The French government bought about 12,000 hogsheads of Maryland tobacco last year.

The exports of flour last year were 2,485,360 lbs. against 2,943,562 lbs. in 1894. Wheat 4,033,922 bus. against 8,448,448 ib 1894. Corn 9,515,021 against 7,758,377 in 1894. Oats 134,318 against 46 bus. 1894. Cloverseed 51,424 against 146,454 in 1894. Timothy 23,579 bus. against 22,666 in 1894.

Receipts of wheat 4,834,118 bus. 1894, 8,858,753. Corn 11,854,704, against 9,586,035 in 1894. Flour 3,779,556 lbs. against 3,818,083 in 1894. Oats 2,895,757 bus. against 1,852,541 bus. in 1894. Rye 364,710 bus. against 258,869 in 1894. Cloverseed 59,073, against 212,116 previous year. Timothy 86,276 against 65,704 bus. in 1894.

Coffee receipts for the year were 245,230 bags, against 213,824 in 1894.

The Union Stock Yard Company reported receipts of 130,340 cattle: 483,459 sheep; and 714,965 hogs during the year, an increase in hogs and sheep, a decrease of 24,000 head in cattle over 1894.

Imports into Baltimore for 1895 amounted to \$19,934,369, against \$11,749,927 in 1894. Exports \$60,154,904 against \$63,961,279 in 1894.

There were 60,929 hhds. tobacco shipped in 1895, against 15,126 in 1894. Cotton 223,581 bales, against 205,994 in 1894. Cattle 40,111, against 61,089 in 1894. Sheep 107,325 in 1995, against 46,277. Lumber 26,488,000 feet in 1895, against 41,975,180 in 1894. Lard 69,257,241 pounds, against 68,464,601 in 1894. Petroleum refined, gals. 45,689,227, against 41,975,180 gals in 1894.

Custom-House receipts in 1895, \$2,868,169, against \$3,188,223 in 1894.

There are 1158 vessels owned and documented in this district, having an aggregate net tonnage of 117,023,66 tons and representing a carrying capacity of 468,094,64 tons.

Total number of immigrants arriving in Baltimore, 1895, were 9,321, against 8,696 in 1894.

Internal revenue collections for the district of Maryland for 1895 were \$4,151;-829,58. against 4,577,455 33 in 1894.

There were 152 new Companies with a capital stock aggregating \$102,077,800 incorporated in Balto during 1895.

The Baltimore Post Office sold during 1895 \$858,477,50 postal goods as against 815,406,42 for 1894. One hundred and three million, seven hundred and three thousand, six pieces of mail were despatched during 1895, weighing 4,028,416 pounds, as against 100,013,714 pieces for 1894, weighing 3,837,697 pounds.

The Appeal Tax Court of Baltimore issued 2,991 building permits in 1895. A prominent real estate broker says it takes 3000 new houses per year to accommodate the increase in Baltimore's population.

ORCHARD AND GARDEN.

We call special attention to this list of Nursery men, Seedsmen, Florists, etc. They all issue good Catalogues and will cheerfully send you one free, if you write referring to the Maryland Farmer. We believe every one of them to be reliable.—Ed. M. F.

Amer. Exotic Nurseries, R. D. Hoyt, Mngr' Seven Oaks, Fla.

E. Moody & Sons, Lockport, N.Y. Niagara Nurseries. Established 1839

Crosman Bros., Seeds and Plants, wholesale and retail. Rochester, N.Y.

F. Barteldes & Co., Kansas Seed House. Lawrence, Kas.

P. J. Berckmans, Trees, plants, etc., adapted to the South. Augusta, Ga.

Green's Nursery Co., Rochester, N.Y. Send for Ill. Cat. & Guide.

Royal Palm Nurseries. Reasoner Bros., Oneoco, Florida

Berlin Nurseries, Wholesale and Retail, J.G. Harrison & Son, Berlin, Md.

T.W. Wood & Sons, Garden and Field Seeds Richmond, Va.

Wm. Parry, Pomona Nurseries, Parry, New Jersey.

Jennings Nursery Co., Trees for the South, Thomasville, Ga.

West Jersey Nursery Co. Send for Cat'g. Bridgeton, N.J.

E.B. Marter, Jr. Seeds, Roots & Plants. Price list free. Burlington, N.J.

Samuel Wilson, Seeds, Plants and Trees, Mechanicsville, Pa.

Strawberry and Cabbage Plants, Trees, &c.. Cat'g free. A. J. McMath, Onley, Va

The Ivy.

Oh, a dainty plant is the ivy green,
That creepeth o'er ruins old !
Of right choice food are all his meals I
ween,
In his cell so lone and cold
Creeping where no life is seen,
A rare old plant is the ivy green.

—Dickens.

Russian Plums.

Mr. J. J. Maxwell of Iowa, writes to a western paper: "I have at least five varieties of Russian plums that have not failed in bearing as much fruit as they could well sustain every year since they were old enough to do so. The Early Red's great fault is that of the Lombard —overbearing. They are more acid than the Lombard, and must hang on the trees until absolutely ripe to afford the best results. The tree is willowy in appearance and the fruit hangs out to the very tips of the limbs. The Yellow Varnish is equal in quality to any of the California plums, unless it be two of the Japanese sorts. It is very large, yellow, pear-shaped and sweet and delicious enough to satisfy the taste of the daintiest epicure. I did not spray the trees this year, and yet they matured as many plums as was good for their health. People in passing often wondered if they were not pears. Two other varieties, both blue, I have not identified, having lost the labels soon after receiving them from the agricultural college. One is medium in size, quite acid until fully ripe ; the other is very large and sweet and a perfect freestone."

Saving Irish Potatoes.

Prof. F. A. Hueber of Wisconsin Farmers' Institute, thus gives his plan of keeping them as follows : After potatoes are dug they should be taken at once to the cellar, away from the sun and hot air, and placed in bins holding 250 or 300 bushels. To obtain a good eating potato, dig as soon as the leaves begin to turn yellow, for as soon as the roots

die the tops die also, after which the flavor is impaired. To prevent knots on potatoes, plow down and cultivate deep; plow deeper and deeper each year and until thoroughly done. Hilling up is not good practice. Much care should be taken to keep the surface of the potato field level.

New land is excellent for turnips; so is any light vegetable mould, sod included.

Loam is a mixture of sand and clay. Light loam has more sand; heavy loam more clay.

Spring is the best season in which to set blackberries, says Prof. Bailey of the Cornell Station, and strong yearling plants are commonly used.

To attain the best success with cauliflower it must have a cool, moist, rich soil. If grown on a dry, sandy loam, to produce good heads the soil must not only be made rich, but the plant mulched, to keep the ground cool, and retain all the moisture possible.

Money spent in trees and plants is money wasted, if those trees and plants are left without care afterwards; they are always a good investment if given proper attention. If the same labor and expense were devoted to an apple or peach orchard in the East it would bring as great a revenue as an orange plantation in California.

A lady florist says that a very pretty house vine is the sweet potato plant. Put a tuber in pure sand or sandy loam, in a hanging basket, and water occasionally. It will throw out tendrils and beautiful leaves, and will climb freely over the arms of the basket and upwards toward the top of the window. Not one visitor in a hundred will know it, but will suppose it to be some rare foreign plant.

The Southern Tobacco Journal.

The Christmas number of the Southern Tobacco Journal comes to us in fine form, and showing marks of great life and enterprise. The print is beautiful, the paper first-class, and the illustrations are brought out to perfection. The half tone portraits show expression and character. It is an honor to its editor and to its printer.

The Acme Harrow.

In our advertising pages will be found an advertisement of the well known Acme Harrow, which has become almost indispensable to those whose land is at all inclined to turn up in an unfavorable condition. Mr. Nash has such faith in it, that he will send it on trial and if not satisfactory it may be returned at his expense. It makes a perfect seed bed to any depth desired, and leaves the ground in such an excellent condition, that not one in a hundred will do without it after giving it a fair trial. Such seems to be the general verdict as to this harrow and Mr. Nash runs no risk in sending it on trial.

Any one who has a garden will welcome the news that AMERICAN GARDENING (P. O. Box 1797, New York) will greet its readers every week, commencing with the new volume in January. Though appearing twice as often, the price, \$1.00 a year, will not be altered. Readers can obtain a free specimen by sending a postal card request to the publishers.

Strange

waste of harness and shoe-leather! Vacuum Leather Oil is best. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swab, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to

VACUUM OIL COMPANY, Rochester, N. Y.

THE HOUSEHOLD.

At Seventeen.

BY DAISY MARBLE WRIGHT.

How fair the frail aircastles.
That our ambition builds!
How bright they in my future
Imagination gilds!
How lightly foes are conquered!
How easily is seen
The road to fame and fortune
When one is seventeen!

At Hope's deluding fountain,
We gladly drink our fill.
Nor dream when old age meets us
'Twill find us thirsty still,
The coming years of sorrow,
The clouds that will be seen,
But dimly cast their shadow
When one is seventeen.

When age has crept upon us,
And golden locks are gray;
When youth and its fair visions,
Time's wings have borne away.
Our hearts, tho' steeped in sorrow,
The memory will keep green,
Of hopes that made life rosy,
When we were seventeen.

Delft plaques are very much in demand.
Persian ribbon ruches are very smart.
A pink moonstone is a novelty for a stick
pin.

Beaded velvet and printed velvet are
in favor.

Shades of yellow are in demand for eve-
ning wear.

The Duchess of Fife is ardently devoted to
photography.

Lorgnettes are smaller than those in use
last season.

Dresden ribbon is fashionable for chorus for
evening bonnets.

Norfolk blouses of serge are much worn by
the modish women.

For general day wear cloth in all dark
shades is immensely used.

Wilhelmina, the young Queen of Holland,
wears bloomers when cycling.

Trilby epaulettes are quite stylish, quite
English and broaden the shoulders.

Princess Henry of Prussia has just patented
her invention of a new parlor broom.

The pompadour has suddenly sprung into
favor, Parisian women have adopted it.

The Prince of Wales is a warm advocate of
a greater variety of colors in men's dress.

Velvet is used extensively for visiting
gowns and social functions of importance.

White belts of silk or kid are chosen for
dark frocks, and many have unique buckles.

So far as ancestry goes Almeric Paget is
much more of a swell than the Duke of Marl-
borough.

Military-looking cuffs, a la Trilby, are often
seen upon walking jackets, with big fur but-
tons and frogs.

Striped flannelette for wrappers, under-
skirts, night-gowns, and dressing jackets is
having a good sale.

The black band on a light overcoat, the
foreign badge of mourning for men, is be-
ginning to appear here.

The Duchess of Marlborough has the long-
est throat in fashionable christendom, it is
even longer than Sarah Bernhardt's.

The soft old daguerreotypes of the past
are considered treasures now worth fram-
ing in dull-colored velvet or in pewter or sil-
ver frames.

For the Maryland Farmer.

NEW YORK FASHIONS.

**Evening Gowns: Sleeves: Skirts: Jewelry;
Trimmings; Notes; Answers.**

Low necked evening dresses are preferably
cut square, though some are round and when
the neck is high, it is completely so, with
the inevitable high collar as a finish. Below
this collar, various accessories are in order.
Elegant shoulder capes of rich spangled pas-
sementerie are a beautiful adornment and
the variety in fancy fronts, is really a study.
For a thin figure, the drooping blouse still
makes compensation: a more tasteful style
shows a wide folded girdle that holds the
thin material in position or as a quite recent
introduction may be noted a waistcoat of
comparatively heavy fabric that is laid in
surplice folds. Embroidered chiffon whether
in bands or laid over satin, produced elegant
effects: lace also embroidered, affords simi-
lar results and some pretty fronts are made

of Venetian guipure or batiste. A band of chene ribbon placed lengthwise in the centre with fullness of chiffon or lace on either side, is very stylish and much use is made of buttons that come in all sizes, the larger being of extraordinary dimensions. They are placed as may seem convenient and almost always serve as adornments, rather than as means of fastening. Put on in front between revers, they sometimes take the place of a vest, but there is no rule regarding them. In

Sleeves,

the tendency is towards less stiffness and exaggeration and the same may be said in respect to skirts. Quite a number of the former, are merely soft puffs and while not the rule, yet many show a tendency to droop towards the elbow. Chiffon sleeves of contrasting color placed in corsages of heavy fabric, are in great favor and sometimes an artistic touch of black is given by means of black velvet ribbon straps over the shoulders. While skirts for day wear and the more ordinary evening occasions, remain plain in front and on the sides, many handsome evening gowns are made with the fullness laid all around in gathers, the corsage showing a sharp point back and front. In such cases, the sleeves are markedly smaller and these dresses are the most decided exponents of Marie Antoinette style. Independent corsages of chiffon are extremely popular for evening and are made with round waists, but the greater number of entire dresses, still show a slight point back and front. In

Jewelry,

fancy pins and also brooches, now preferably simulate insects, frogs, crabs, birds or animals. Greenish gold is a new fancy and olivines that belong to the green garnet family, are in much demand. Especial use is also made of pearls and opals and the three appear in many ingenious combinations, in the novelties of which mention has just been made. Pearl necklaces are very fashionable and nothing is more stylish than a collar of small pearls set in successive strands and held together at intervals, by worked gold. Flexible bracelets are most in demand and when a finish of gems appears

they are set in a row on the gold circlet. Great use is now made in evening dresses, of

Fur

as a trimming. Many beautiful gowns of satin or velvet, show sable or mink in finish: on Opera cloaks that are preferably of brocade, it comes never amiss and a combination of fur with lace or chiffon, is thought very desirable. An elegant dress of white satin lately worn at her debut by a young lady of the 400, was trimmed with sable furnished by C. C. Shayne. Since that time, great reductions have been made at this leading establishment and in view of such fact, many judicious buyers delay until after the New Year, to make purchases. The putting together of two kinds of fur, is a style that has met with decided favor and it is quite common to see a Persian lamb cape finished by a collar of ermine or chinchilla, especially the latter, these being only some of the new methods in combination.

A delightful liberty now exists in the arrangement of the hair. It is dressed high or low: some persons of classic features, wear the Pompadour roll: waves at the sides may be in greater or less abundance or conservative women, young or elderly, may retain the bang cut to suit their features.

"Mrs. X. Y." The S. H. and M. bias velveteen skirt bindings are really all that is claimed for them, but be sure that the right letters are on the label, since they are sometimes imitated with a purpose to deceive.

"Laura." Gloves are preferably now of dressed kid and white or extremely fashionable for evening. In length, they vary according to the length of sleeves, twenty-four buttons being the longest. Black kid whether for day or evening, are much worn and for general use, are certainly desirable, because they do not show soil. In questionable taste, they are worn with light toilettes for evening. Evening slippers are of glazed kid or satin and usually match the dress.

"Kathryn." White satin skirts are in immense favor for evening wear, as they show off independent waists of colored chiffon.

ROSALIND MAY.

A Tasty Dish from Giblets.

Giblets are quite worthy of careful preparation, and make a hearty and nourishing dish. Choose a good set of giblets, scald them two or three minutes, singe and clean them thoroughly, cut the neck and gizzard each in four, the pinions and legs each in two places, cut into neat pieces half a pound of good streaky bacon, fry them in an ounce of butter till slightly brown, take them out and put them aside to keep warm. Put the giblets into the same stewpan in which the bacon has been browned, with butter, salt and pepper. When they are brown, dredge some flour over them, add some water, stir the contents till they boil, add the bacon, a bunch of sweet herbs, turnips (cut round and oblong) and some onions—which latter should previously have been browned in butter. Half an hour before serving put in about a dozen potatoes, peeled; put in the liver only about ten minutes before serving, or it would be overdone and crumbled. These materials should boil together about an hour, then remove the bouquet, skim off the fat, put the giblets in the centre of the dish, arrange the vegetables all around, pour the gravy over the whole, and serve very hot.

Cauliflower.

Cauliflower, once an expensive luxury, is now raised so commonly that it is almost as cheap as cabbage. A few dainty ways of serving it may be acceptable. However the cauliflower is cooked, it must be first boiled. Cut off the stem and remove the green leaves. Plunge it head downward in abundance of cold water. Throw a teaspoonful of salt in the water, and after it begins to boil cook it thirty minutes. The cauliflower may

now be drained and served, in a cream sauce, made by mixing a teaspoonful of flour with a tablespoonful of butter, adding a cup of milk and salt and pepper.

To serve the cauliflower au gratin, break it up into flowerets after boiling it. Lay half of these flowerets in a layer in the bottom of an earthen baking-dish. Any dish, such as is generally used to cook maccaroni, will answer. Put a heaped tablespoonful of grated Parmesan cheese over this layer. Add about a pint of cream sauce, made after the recipe given with the plain boiled vegetable. Fill up the dish with the remainder of the flowerets. Sprinkle more Parmesan cheese over them. Pour over more cream sauce. Finally, add some bits of butter, a few bread crumbs and bake in a hot oven for twenty minutes or until it is well browned. Or cook the cauliflower in the same way omitting the cheese, and substituting for it layers of hard-boiled eggs chopped fine.

DO YOU KEEP SHEEP?

Read the **AMERICAN SHEEP BREEDER**. Established 14 years. Thirty-six Pages devoted to Sheep, Mutton and Wool. Elated by highest authorities. Elegantly illustrated. Veterinary Dep't worth ten times subscription price. Send stamp for sample copy and terms to new subscribers.

AMERICAN SHEEP BREEDER,
(W. W. BURCH, Mgr.) Chicago, Ill.
Mention this paper.

There is more Catarrh in this section of the country than all other diseases put together, and until the last few years was supposed to be incurable. For a great many years doctors pronounced it a local disease, and prescribed local remedies, and by constantly failing to cure with local treatment, pronounced it incurable. Science has proven catarrh to be a constitutional disease, and therefore requires constitutional treatment. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, is the only constitutional cure on the market. It is taken internally in doses from 10 drops to a teaspoonful. It acts directly on the blood and mucous surfaces of system. They offer one hundred dollars for any case it fails to cure. Send for circulars and testimonials. Address,

F. J. CHENEY & CO., Toledo, O.
Sold by Druggists, 75c.

THE POULTRY YARD.

Our readers will receive every attention, if they will address any of the Poultrymen in the select list below, and state their wants. Ed. M. F.

Lewis C. Beatty, Washington, N. J. Fancy Poultry
All varieties. Circular free.

The Best Brooder, \$5.00. Send for Circular.
G. S. Singer, Cardington, Ohio.

Jacob Bower, Kilbuck, Ohio. Black Langshan's.
Birds and Eggs for Sale.

Capon Instruments post paid \$2.50. G. P. Pilling &
Son, 115 S. 11 St., Philadelphia, Pa. Book free.

Barbour & Son, Eggs $\frac{1}{2}$ Price. 13-\$1. 39-\$2. 10 Var
E. Ave. Rochester, N. Y.

B. Hammerschmidt, South Buffalo, N. Y. Bl'k Javas
Wyandotte, Leghorn, Minorca

F. L. Hooper. Pearl Guinea Fowls.
Station B. Baltimore, Md.

S. H. Merryman. \$8.00 Incubators.
Bosley, Md.

Enterprise Poultry Yards. Annville, Pa. HighClas
Poultry. Circular free.

O. K. Feed is a Meat and Bone Ration for Poultry.
C. A. Bartlett, Worcester, Mass.

Wm. M. Hughes, Box 56, Newport, R. I. Bl'k Langs
B. P. Rocks. Games, Bantams.

A. F. Williams, Monitor Incubator, best in the
country. Bristol, Conn.

Von Culin Incubator Co. Incubators.
Delaware City, Del.

Orrs Mills Poultry Yards. L. Brahmias. P. Rocks
Wyandottes. P. Ducks. Orr's Mills, N. Y.

F. B. Zimmer & Co. Gloversville, N. Y. Beagle
Hounds, Leghorns, PR'ks, Bants

Hammonton. (N. J.) Incubator Co. Incubators
and Brooders

John W. Silcott, Snickersville, Va. Buff Cochins
Fine young trios \$5. Egg \$1. for 15

Geo. A. Friedrichs, Erie, Pa., White Fowls—Polish,
Cochins, Leghorns, Catalog free

Prairie State Incubators & Brooders. Selling Agts
H. A. Dreer, 714 Chestnut St. Phila. Pa.

J. D. Engel, Middleburg, Md., 8 kinds of Poultry
Eggs \$1.00. 20 kinds Seed Potatoes.

Caponize Instructions mailed free. William H.
Wigmore, 107 S. 8th St., Philadelphia, Pa.

S.C. White Leghorns only. Eggs \$1.00 per 15. W. J.
Richardson, Owings Mills, Md

Black Langshans. Eggs \$1. per 13; Cockerels \$1.50
S.W. North, Berkeley Sp'gs, WVa

Eggs and Stock, Bar'd P. Rock. Mammoth Bronze
Turkeys. Edith E. Simmonds, Finksburg, Md

Maryland Agricultural Co. Poultry supplies.
32 W. Pratt St.

R. S. Cole, Harmans, Md. Single C. Brown Leghorn
fowls and eggs from premium stock.

Feeding Experiments with Hens.

1. Two lots of laying hens, large and small breeds respectively, having their grain food only dry and whole, ate more food at greater cost per fowl and for the live weight than did two similar lots having about 37 per cent. of their grain ground and moistened.

2. A pen of Leghorns which had for the year 37 per cent. of their food ground and moistened grain produced eggs at a greater profit than did an exactly similar pen fed whole grain.

3. Of two like pens of Cochins, the one fed whole grain produced eggs at much less cost than did the pen having ground grain, which result is attributed partly to the exercise assured in feeding whole grain.

4. With the kinds of whole grain ordinarily available it is not possible to feed a largely grain ration having as narrow a nutritive ratio—that is, containing as large a proportion of nitrogenous food constituents—as is perhaps necessary for the best results from laying hens.

5. By using some of the highly nitrogenous by products with ground grain it

THE MARYLAND FARMER.

is possible to feed a somewhat narrow ration without feeding an excessive amount of meat.

6. With hens fed similar rations, when the hens of smaller breeds give only the same egg yield as the hens of larger breeds, the eggs are more cheaply produced by the smaller hen, but taking into consideration the cost of raising and the ultimate poultry value of the hens, the profits will be equally or more favorable for the larger hens.—New York Experiment Station.

Do not tolerate a cross fowl in the flock. One fighting hen will torment the whole lot.

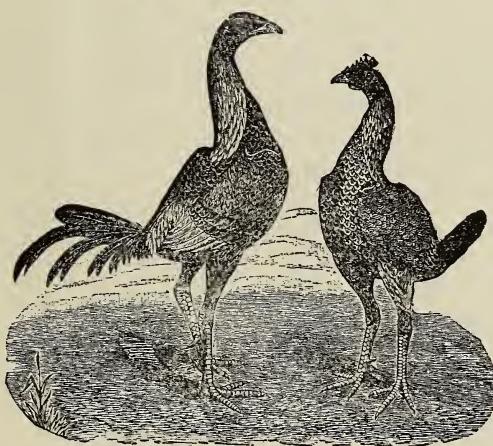
Train the young poultry to roost in the poultry house from the start.

The laying of unusually large eggs denotes that the hens are in an overfat condition.

If ducklings are exposed to wet weather, they are apt to take cramps in their legs.

Never dump the grain down to the fowls. Broadcast it, so that all will have an equal chance.

It does not pay you to keep mongrels. Pick out your best layers, and mate a thoroughbred cockerel with them, and you will gradually build up your stock.



INDIAN GAMES.

We give a fine illustration of the Indian Game breed of fowls, which has recently become quite popular among fanciers. It is much heavier than the pit games, and is said to be in no way as pugnacious as the ordinary games. Aside from this, it has all the characteristics of pure game birds—compactness of feathers, as well as the shape of head and powerful

legs of games trained for the pit. The weight of Indian Games is very deceptive to those unacquainted with the breed, generally being two or three pounds greater than estimated. As a cross for ordinary farm stock, to improve size and add other desirable qualities, they are unsurpassed. It will pay to purchase a cock for this purpose.

THE SLEEP OF INFANCY.

**Watchfulness Needed that No Ill Effect
May Come of it**

Sleep is regarded as the time when only good arrives to the sleeper, and in the case of adults this is so; with children, however, the matter is different. The actual fact of sleep is good, but the matter of sleep is not always so by any means, for, during these periods of repose, a child may contract a habit of position which will cause a lasting deformity. In the first place, children are often put to sleep always on the same side. The mother finds them less restless so, and thoughtlessly lays them that way. Sometimes this restlessness is caused by physical defects, but it mainly arises from habit. No creature on earth is more liable to habit than a tiny, soft baby, that you wouldn't think could possess any distinct quality. A mother, for some reason peculiar to herself, finds it most convenient to place the little one on its left side, we will say, for about three days; when the fourth day arrives master baby decides there is something wrong if he is put on his right side, and forthwith begins to squirm and twist until he fidgets himself awake. Mamma places him on the other side, and he serenely settles himself.

Constantly lying on one side will make a difference in the size of the limbs upon that side, and will even cause that side of the face to remain smaller than the other. Children will also draw up one leg in their sleep. This, too, becomes a fixed habit, and by the time the child has learned to walk a difference in the length of the two lower limbs will be noticed, a misfortune which might have been avoided had the mother been careful to watch the habits of the sleeping baby.

In the bringing up of children it is not so much the care over larger things that counts, but the constant watchfulness against the "little foxes that destroy the vines."—*Woman's Journal*.

Fortunate Hens.

Neighbour—"What beautiful hens you have, Mrs. Stuckup."

Mrs. Stuckup—"Yes, they are all imported fowls."

Neighbor—"You don't tell me so! I suppose they lay eggs every day?"

Mrs Stuckup (proudly)—"They could do so if they saw proper, but our circumstances are such that my hens are not required to lay eggs every day."—*Texas Siftings*.

Mad Dogs.

Some popular illusions concerning dogs afflicted with rabies have been dissipated by a recent tract prepared by Dr. J. B. Morton, and published by the S. P. C. A. in Elizabeth, N. J. The dog that is commonly supposed to be mad is simply epileptic. A mad dog never barks, never froths at the mouth, never runs around in an excited, erratic manner; these are the symptoms of epilepsy never of rabies. A rabid dog is silent—not even blows will extort an outcry from him; he has no dread of water; his movements are dull, his aspect disconsolate. Rabies is a very rare disease, and may occur in any season of the year—it is as likely to occur in winter as in summer. Knowledge of these facts—and they seem to be well attested—will relieve much apprehension.

If only we strive to be pure and true,
To each of us all there will come an hour
When the tree of life shall burst into
flower,
And rain at our feet a glorious dower
Of something grander than we ever knew

Books and Catalogues.

The January issue of the *Cosmopolitan* comes out in an entirely new cover—a drawing of a page length by the famous Paris artist, Rossi, in lithographic colors on white paper takes the place of the manilla back with its red stripe. Hereafter the cover is to be a fresh surprise each month. The present exceeds all past numbers in handsome get up and illustrations, many of them in colors. The literary features are marvels of interesting reading. All beautifully illustrated by renowned artists. The cheapness of this superb magazine places it within the reach of everyone. Price \$1.00 per year, or 10c. a copy. All news dealers sell it. The Cosmopolitan Co. Irvington on the Hudson.

Frank Leslie's Pleasant Hours for boys and girls should be in every home. Every boy and girl should read it, and enjoy the wealth of good things found within its pages. It is full of short stories, sketches of adventure, war incidents, descriptions of new games, amateur plays, tricks and puzzles. The best writers for children contribute to it. It is profusely illustrated. Price \$1.00 per an. or 10c. per copy. All book-sellers sell it, or send to the home office, Frank Leslie's Publishing House, 42-44 Bond St., New York.

Frank Leslie's Popular Monthly, illustrated. This is one of the best magazines published. It is beautifully printed on clean white paper, with a colored frontispiece every month. Its subjects are wisely chosen and intended to interest all tastes of the refined reading public. The January number contains Great Ship Canals, by Aurthur Vaughan Abbott, C.E. A day with the Tunny Fishers, by Charles Edwards. The Magnet Stone—a continued story of Francis Swann Williams. Chamois

Hunting in the Alps, by Hugh E. M. Stutfield. King Lear's Daughter, by Eileen Edgar. January Days in Morocco, by A. B. de Gunville. Naval Cadet Days, by Joseph Coblerz Goff, with beautiful views of the Annapolis Navy Yard. English Christmas and Scottish New Year, by M. E. Leicester Addis, &c., &c. Every subject is finely illustrated. Price \$3.00 per year, 25c. per copy. For sale by all news agents. Frank Leslie's Publishing House, 42-44 Bond St., New York.

T. W. Wood & Sons' New Seed Catalogue and Guide for the Farm and Garden for 1896 is now ready. It is one of the handsomest publications of the kind issued, and its seed information is fully up to date. Wood's Descriptive Catalogue has long been noted for the full and valuable information it gives about all garden and farm crops, and the issue for 1896 is more complete than ever before. It is a most valuable reference book for the farmer and gardener at all seasons of the year, telling the best crops to grow and the best way to grow them. Mailed free on application. Don't fail to write for it, to T. W. Wood & Sons, Seedsmen, Richmond, Va., mentioning the Maryland Farmer when you write.

Something to Remember

That Rheumatism can be cured with *Royal Mustard Oil Liniment*. The greatest household remedy on earth for man and beast. A sure cure for rheumatism, neuralgia, lameness, swelling, diphtheria, sore throat, toothache, earache, sprains, bruises, burns, cramp, colic and all other pains. Keep a bottle in your house at all times. Price 25 cents per bottle. For sale by all druggists.

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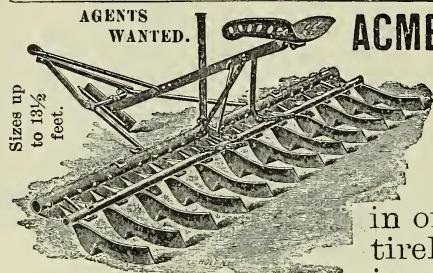
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Nearly all fertilizers are ineffective because they contain too little nitrogen. Add a little NITRATE OF SODA to these and the result will be astonishing.

A Valuable Pamphlet telling how to save \$10 to \$15 per ton on fertilizers, and how to fertilize most economically and effectively, sent FREE. Address S. M. Harris, Moreton Farm (P.O.), New York.



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J. L. LOVETT,

Emilie, Pa.

A CORN CONTEST.

This paper circulates in the best corn producing sections of the country and there are few of our subscribers who are not corn growers. Every practical corn grower should take pride in having the best corn and the largest crop, and we notice that this year there is to be a contest as to who will produce the largest crop of corn on one acre of land. The contest is open to all competitors in any part of North America, and it is being so extensively advertised that it is attracting great attention and assuming national importance. We would feel gratified if one of our subscribers should win the prize as the best corn grower in America (that would mean in the world) and therefore we take pleasure in calling our readers' special attention to the matter. The prizes amount to a total of \$500.00, in addition to which the value of the corn grown, as seed corn, would be no small sum, and the reputation of having won this prize would be worth more to any man than the best 40-acre farm in this state. Full particulars in regard to this contest can be obtained from the Iowa Seed Co., Des Moines, Iowa, together with a large, beautifully illustrated catalogue of all the best varieties of

seed corn and other kinds of farm and garden seeds. These catalogues are expensive, costing 17 cents each, but will be mailed free, provided you mention this paper.

Burpee's Farm Annual for 1896.

Larger and more complete than ever before, this is now a handsome book of 184 pages, with elegant colored plates and hundreds of illustrations from nature deserving its well-known reputation as "The Leading American Seed Catalogue." While the price is ten cents, it is mailed FREE to all planters who name this paper and write to the publishers, W. Atlee Burpee & Co., Philadelphia.

Beautifully bound, the cover, painted in ten colors, appropriately shows on front the new Dwarf Sweet Pea, CUPID, *the floral wonder of the age*, which grows only five inches high, completely covered with bloom. The back pictures a portion of FORDHOOK FARM, above which is displayed the well-known motto, "BURPEE'S SEEDS GROW."

A Very Desirable Calendar.

Calendars of all kinds and sizes herald the coming year. The one published by N. W. AYER & SON, Newspaper Advertising Agents, Philadelphia, seems if possible even better than its predecessor. Handsome enough for the library, and yet carefully adapted for every-day use, it is naturally a great favorite. The firm's well-known motto, "Keeping Everlastingly At It Brings Success," appears this year in a new and very attractive form. The daily presence of this inspiring motto is worth far more than the price of any calendar. Its price (25 cents), includes delivery, in perfect condition, postage paid, to any address.

GRASS IS KING

We are the only seedsmen making the growing of farm seeds, grasses and clovers a great specialty. Our Extra Grass and Clover Mixtures last a lifetime without renewal. Prices dirt cheap. Mammoth Catalogue 10 pages. Grains and Grasses free for first class postage. Catalogue alone 5c.

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Seed Potatoes. It is only necessary for potato growers North, East and West, to try them. They make earlier, larger, and more profitable potatoes than one crop, of Matured Seeds. Catalogues sent free.

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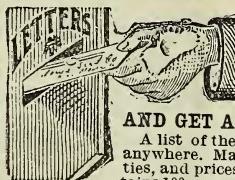
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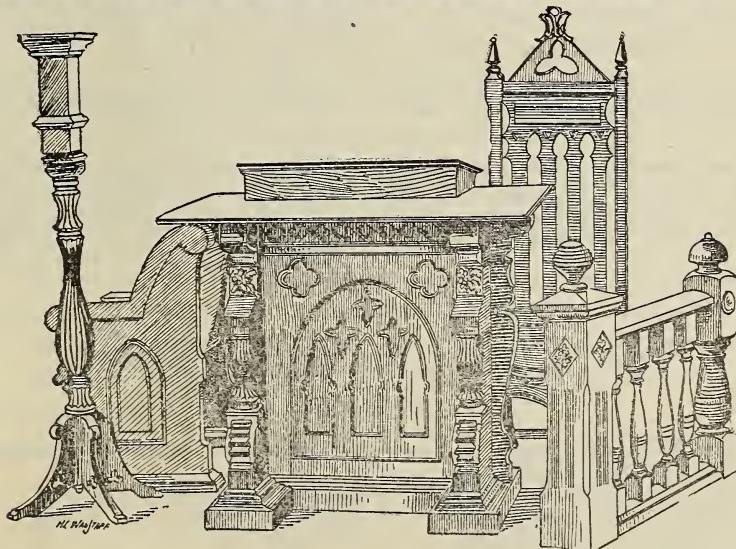
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N. B. Several splendid young Gobblers, bright plumage, heavy weight purely berd now for sale.



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THE ONLY

NEW DOUBLE SWEET PEA, Bride of Niagara,
True to name. Price—Packet 25 cents, half packet 15 cents.

The Wonderful CRIMSON RAMBLER ROSE, only 15 cents.

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Lithographs of Double Sweet Pea, Roses, Fuchsias, Blackberries, Raspberries, New Leader Tomato, Vegetables. Filled with good things, old and new.

Full list of Flowers, Vegetables, Small Fruits, etc., with description and prices. Mailed on receipt of 10c., which may be deducted from first order—really free,—or free with an order for any of the above.

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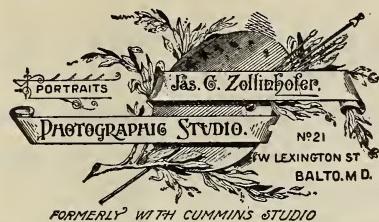
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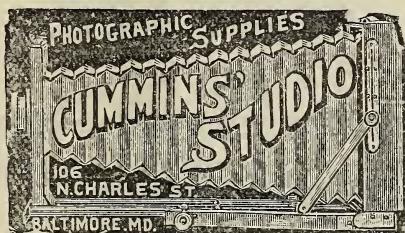
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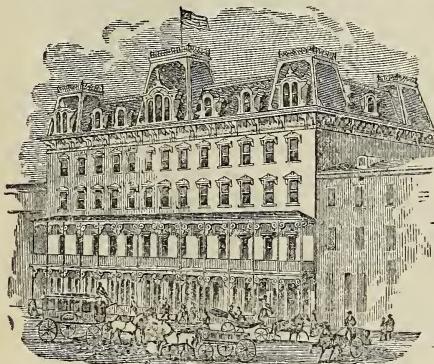
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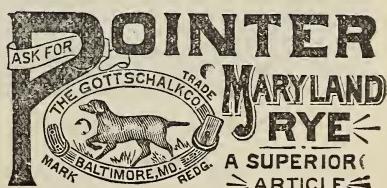
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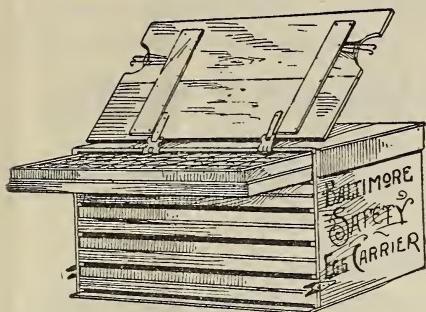
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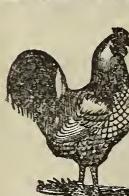
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Monday, January 6th, "the New York and Florida Special" over Pennsylvania Railroad and Atlantic Coast Line. "Florida Short Line Limited" over Pennsylvania Railroad, Southern Ry. and Florida Central and Peninsula R. R. will be placed in service. The equipment of these trains will consist of Composite, Dining, Observation and sleeping cars. "The Florida Special" will leave Baltimore daily, except Sunday, at 9.26 P.M. "The Florida Short Line Limited" at 8.37 P.M. daily.

Southern Railway Terminals.

The work on the Southern Railway terminals near Portsmouth, Va., is progressing rapidly. One warehouse, 60x400 feet, has been completed, and the foundation for another structure, 72 x 400 feet, has been laid. An engine and boiler-house has been completed; also an office building. About 25 miles of sidings for yard purposes have been built for the use of the Southern and the Atlantic Coast Line. Work is about to begin on a dock 140 feet wide for ocean steamships, also on a movable transfer dock for placing cars on ferry-boats.

Seeking a New Alliance.

According to a despatch from Norfolk, Va., the Seaboard Air Line is negotiating for an alliance with the Nashville, Chattanooga and St. Louis system and the Plant Railroad and steamboat system against the Southern Railroad Company, which is said to have decidedly the best of the field between the Potomac and Mississippi rivers. President Hoffman is in Norfolk, where, it is said, he had a conference with President Thomas of the Nashville, Chattanooga and St. Louis.

The general offices of the Norfolk and Western Railroad Co, at Roanoke, were totally destroyed by fire on January 4th. All records in the car record offices were destroyed, as well as those in the freight claim dep't. of the auditor's office. The offices will be rebuilt,

No line in the world equals the New York Central in the comfort and speed of its trains and the beauty and variety of its scenery.

In the opinion of a prominent English expert, the New York Central possesses the most perfect system of block signals in the world.

8½ hours, New York to Buffalo; 9½ hours, New York to Niagara Falls; 24 hours, New York to Chicago; 21½ hours, New York to Cincinnati; 29¼ hours, New York to St. Louis, via the New York Central.

The most comfortable route to St. Louis is the New York Central.

The best line to Cincinnati is the New York Central, through Buffalo and Cleveland.

The direct line to Niagara Falls is the New York Central.

Traveling by the New York Central, you start from the center of the city of New York, and reach the center of every important city in the country.

Tours to the Golden Gate and Florida via Pennsylvania Railroad.

The public are quick to recognize the advantages of the Pennsylvania Railroad Company's perfect personally-conducted tours system is exemplified by the annual increase in the number of participants in tours organized under that system. Aside from this, the growing desire of Americans to see the wonders of their land is also an important factor in advancing this healthy sentiment in favor of travel.

The season's tours to California will be conducted in all respects as those of preceding years, and will leave New York and Philadelphia February 12 and March 11, 1896. On the first tour a stop will be made at New Orleans for the Mardi Gras festivities, and four weeks will be allowed in California. On the second tour four and one-half weeks will be allowed in California.

In addition to the tours to the Golden Gate, a series of tours to Jacksonville has been arranged. The tours will leave New York and Philadelphia January 28, February 4, 11, 18 and 25, and March 3, 1896, and allow two weeks stay in the "Land of Flowers."

Detail itineraries of these tours will be sent on application to Tourist Agent, 1196 Broadway, New York, or Room 411, Broad Street Station, Philadelphia.

TRAVELERS GUIDE.

(SCHEDULE, In effect November 4, 1895.)

Baltimore and Ohio R. R.

Leave Camden Station.

For Chicago and Northwest, Vestibuled Limited Express daily 10:30 A. M. Express 7:20 P. M.

For Cincinnati, St. Louis and Louisville, Vestibuled Limited Express daily 2:40 P.M., Express 10:50 night.

For Cleveland, and Pittsburgh, 10:30 A.M. and 7:30 P. M.

For Washington, week days, 5.00, x6.15, x6.25, 6.45 x7.20, x8.00, 8.35 x9.30, 10.30, A. M. (12.00 noon 45 minutes) 12.10, x12.50 x2.40, 2.50, (3.45, 45 minutes,) x4.10, 5.10, x5.40, x6.00, 6.18, x7.20, x7.30 x7.48, 9.15, x10.10, x10.50, 11.30 P. M., Sundays, x6.25, 6.45 x8.35, x9.30, 10.30, A. M., (12.00 M., 45 minutes,) 1.05, x2.40 x3.45, 45 minutes,) 5.10, x5.40 6.18, x7.20, x7.30, 9.15, x10.10, x10.50 and 11.30, P. M.

For Annapolis, 7:20, 8:30 A. M., 12:50 and 4:10 P. M. On Sunday, 8:35 A. M. and 5:10 P. M.

For Frederick, 4.00, 8.10, A.M., 1.20, 4.20 and 5.25 P. M. On Sunday, 9:35 A. M. and 5:25 P. M.

For Luray, Roanoke and all points in the South via N. and W. R. R., week-days 7:48 P. M.; Sundays 7:20 P. M. Sleeping cars to Roanoke, Chattanooga and New Orleans. For Luray 2:40 P. M. daily.

For Lexington and points in the Virginia Valley, 4.00, 10.30 A.M. For Winchester, 4:20 P.M. Mixed train for Harrisonburg \$4.00 A. M.

For Hagerstown, 4.00, 7:10 x10.30 A. M., 4:10 P. M.

For Mt. Airy and Way Stations, *4.00, *8.10, \$9.35 A. M., 4:10, (4:20 stops at principal stations only,) *5.25, *6.30, *11.10 P. M.

For Ellicott City, 4.00, 7:00, 8:10, \$9.35, A. M. 4:10, 7:30, 4:20, 5:25, 6:30, 9:10, 10. P. M.

For Curtis Bay, week-days 6.28 A. M., Leave Curtis Bay, week-days 5.10 P. M.

Trains arrive from Chicago, and the Northwest, daily, 1.05 and 6.05, P. M. From Pittsburgh and Cleveland, 8.20, A. M. 6.05 P. M.; from Cincinnati, St. Louis and the West, 7:50 A. M., 1:20 P. M., daily.

Royal Blue Line for New York and Philadelphia.

All trains illuminated with Pintzel light.

For New York, Boston and the East, week-days, 6.35 (8.00, Dining Car) 8.55, (10.50, Dining Car) A. M. 12.20, (1.30 (Dining Car) 3.50, (5.55 Dining Car,) 9.00 P. M.: 1:15 night, Sleeping Car attached, open for passengers 10:00 P. M.) Sundays, (8.00 Dining Car) 9.55 (Dining Car,) A. M. 1:30 Dining Car, 3.50, (5.55 Dining Car,) 9. P. M. 1:15 night, Sleeping Car attached, open for passengers 10:00 P. M.

For Atlantic City, 10.50 A. M., 12:20 1.30. P.M. Sundays 1.30 P. M.

Cape May week-days 1:30 P. M.

For Philadelphia, Newark, Wilmington and Chester, week-days, 8:00, stopping at Wilmington only, Dining Car, 8.55 (10.50, stopping at Wilmington only, Dining Car,) A. M. 12:20, (1.30, Dining Car,) 3.50, 5.55 Dining Car, 9 P. M. 1:15 night, Sundays, 8.00 stopping at Wilmington only, Dining Car, (9.55 Dining Car) A. M., 1.30 Dining Car, 3.50, 5.55 Dining Car, 9.00 P. M., 1:15 night.

For all Stations on Philadelphia Division, week days, 8.05 a.m., 2.55, 5.15 p. m. Sundays, 9.05 a.m. 5.15 p.m.

*Except Sunday. \$Sunday only. °*Daily.

xExpress train.

Baggage called for and checked from hotels and residences by Union Transfer Company on orders left at Ticket Offices:

N. W. Cor. CALVERT AND BALTIMORE STS
230 South Broadway or Camden Station.

R. B. CAMPBELL HAS. O. SCULL,
Gen. Manager Gen. Passenger Agent

(In effect November 17, 1895.)

Western Maryland Railroad.

Leave Hillen Station as follows:

*4.30 A. M.—Fast Mail, Main Line, N. and W. R. R. and South, and ex. Sunday P. V. R. R., B. & C. V. R. R. also Martinsburg and Winchester.

+7:22 A. M.—Main Line East of Emory Grove; also York, B. & H. Div; and G. and H. R. R.

+8:11 A. M.—Main Line B. & C. V. R. R., P. V. R. R., Emmitsburg and N. & W. R. R. to Shenandoah

\$9.30 A. M.—For Union Bridge and Hanover.

+10:17 A. M.—Accommodation for Union Bridge, York, B & H Div to Gettysburg; and G & H R. R. Tues, Thurs and Sat, to all points on B & H Division.

+2:25 P. M—Accommodation for Emory Grove.

\$2.35 P. M—Accommodation for Union Bridge.

+3:32 P. M.—Exp. for York and B. & H Div.

\$4.00 P. M.—Accommodation for Emory Grove and Alesia

+4:08 P. M.—Express Main Line Points, also Emmitsburg, B. & C. V. R. R., P. V. and N. & W. R. R. it.

+5:10 P. M.—Accommodation for Emory Grove.

6:05 P. M.—Accommodation for Union Bridge.

+8:05 P. M—Accommodation for Emory Grove.

\$10.10 P. M.—Accommodation for Emory Grove.

*11:25—Accommodation for Emory Grove.

Daily. † Daily ex. Sunday. \$Sunday only.

Ticket and Baggage Office, 205 East Baltimore St.
All trains stop at Union Station, Pennsylvania Avenue, Fulton and Walbrook Stations.

B. H. GRISWOLD, Gen'l Passenger Agent.
J. M. HOOD, General Manager.

Annapolis and Baltimore Short Line R. R.

Leave Camden Station—Week Days:

7:15 a. m., for Annapolis and Way Stations.

8:50 a. m., for Annapolis and Way Stations.

1:10 P. M., for Annapolis and Way Stations.

5:40 p. m., for Annapolis and Way Stations.

Sundays.

8:50 a. m., for Annapolis and Way Stations.

4:50 p. m., for Annapolis and Way Stations.

Trains leave Annapolis 6:45, 8:55, a. m. 12:00 m and 3:50 p. m. Week Days, and 8:55 a. m., 4:30 p. m. on Sundays.

C. A. COOMBS, General Manager.

On and after September 23, 1895, Steamer Sassafras will leave Georgetown on Monday, Wednesday and Friday at 7:30 a. m.; Shallcross' 7:45; Cassidy's 8:00; Turner's Creek 8:15, Betterton 9:00 Buck Neck 10:15 and Gale's Wharf 10:30 a. m.

Returning leave Baltimore, Pier 6, Light st., at 10:30 a. m., on Tuesday, Thursday and Saturday for the above landings.

WILLIAM CUNDIFF, Superintendent.

TRAVELERS GUIDE.

Schedule in effect December 25, 1885.

Balto. Chesapeake & Atlantic Railway Company.

Water and Rail Routes to Ocean City and all points on the Chesapeake Bay and its tributaries.

For Health, Pleasure and Business.

Unexcelled facilities for both passenger and freight traffic.

Steamers leave Pier 3; 4 and 4½ Light Street Wharf Baltimore as follows:

RAILWAY DIVISION. 4:30 p. m. daily, except Saturday and Sunday; Saturday only, 3 p. m. for Claiborne and stations to Ocean City.

CHOPTANK RIVER LINE. 8. p. m. daily, except Sunday, for Easton, Oxford, Cambridge, and landings to Denton. Returning leave Denton at 12:30 p. m. daily, except Saturday, Cambridge, 6. p. m.; Oxford, 7:30 p. m.; Easton 9:30 p. m., arriving in Baltimore at 5 a. m.

WICOMICO RIVER LINE. 5. p. m. every Tuesday, Thursday and Saturday for Wingate's Point, Deal's Island and landings to Salisbury. Returning, leave Salisbury at 2:30 p. m. every Monday, Wednesday and Friday, arr. in Baltimore at 6 a. m.

NANTICOKE RIVER LINE. 5 p. m. every Monday, Wednesday and Friday for Deal's Island, and landings to Seaford, Del. Returning, leave Seaford at 12 o'clock noon Tuesday, Thursday and Sunday, arriving in Baltimore at 5 a. m.

GREAT WICOMICO AND PIANKATANK RIVER LINES. 5. p. m. every Tuesday, and Friday for Great Wicomico River, Dividing, Indian and Dymer's Creeks, Little Bay, Milford Haven, and Piankankatank River to Freeport. Returning, leave Freeport at 6 a. m. every Monday, and Thursday arriving in Baltimore at 5 a. m.

Steamers leave from foot of South Street as follows:

POCOMOKE RIVER LINE. 5:30 p. m. every Tuesday and Friday for Crisfield, Tangier Island, Onancock, and landings to Pocomoke City and Snow Hill. Returning, leave Snow Hill at 6 a. m., Crisfield, 6 p. m. every Monday and Thursday, arriving in Baltimore at 6 a. m.

MESSONGO RIVER LINE. 5:30 p. m. every Wednesday, for Fords, Crisfield, Harborton, Evans, Boggs, Hunting Creek and Messongo. Returning, leave Messongo every Wednesday and Saturday at 6 a. m., Crisfield 6 p. m., arriving in Baltimore at 6 a. m.

OCCOHANNOCK RIVER LINE. 5:30 p. m. every Sunday for Fords, Crisfield, Harborton, Evans, Boggs, Cedar View, Nandua, Concord, Read's, Davis', Shields, Rues. Returning, leave Rues every Tuesday at 8:30 a. m., Crisfield, 6. p. m., arriving in Baltimore at 6 a. m.

WILLARD THOMSON.

24 South Street.

Gen'l. Manager.

Baltimore & Lehigh Railway.

NORTH AVENUE STATION,
BALTIMORE.

LEAVE WEEK-DAYS FOR CARDIFF—
8:00 A. M., and 4:00 P. M.

LEAVE WEEK-DAYS FOR BELAIR.
9:30 A. M., and 5:30 P. M.

SUNDAY FOR CARDIFF—
9:30 A. M. and 4:00 P. M.

SUNDAY FOR BELAIR—6:30 P. M.

W. A. MOORE. Gen'l. Manager.

Wheeler Transportation Line.

Great Choptank, Trappe and Tuckahoe Rivers.

Pier 5 Light Street Wharf.

Daily except Sundays at 9 P. M. for Trappe, Chancorl's, Clark's, Medford's (Choptank) Lloyd's, Dover Bridge, Kingston, McCarty's Ganey's, Downes', Towers, Williston, Tuckahoe Bridge, Reese's, Coward's, Covey's, Hillsboro and Queen Anne.

RETURNING.

Will leave Hillsboro Mondays, Tuesdays, Wednesdays, Thursdays and Fridays at 11 a. m., Covey's 11:30 a. m., Coward's 12 m., Williston 2 p. m., Ganey's 2:30 p. m., McCarty's 3 p. m., Kingston 3 15 p. m., Dover Bridge 3:30 p. m., Medford's [Choptank] 5 p. m., Clark's 5:30 p. m. Trappe 9 p. m. Stopping at Intermediate Landings, arriving in Baltimore early the following mornings.

Steamer leaves Hillsboro Saturdays at 4 p. m. for Williston, leaving Williston Sundays at 7 a. m., Medford's 10 a. m., Trappe 1 p. m. arriving in Baltimore 8 p. m. Sundays. Freight received at Pier 5 Light St., wharf until 6 p. m. daily for all landings.

E. E. WHEELER, Agent.

Potomac River Line.

Leave Pier 12 and 13 Light Street wharf every Thursday and Sunday at 6 p. m. for Potomac River Landings, extending Sunday trip to Washington and Alexandria. Leave Washington at 5 p. m. Tuesday.

ALVIN P. KENNEDY, Manager.

TRAVELERS GUIDE.

Weems Steamboat Company.

PATUXENT RIVER ROUTE.—Pier 2 Light st. For Fair Haven, Plum Point, Governor's Run and Patuxent river as far as Benedict, Wednesday and Saturday, at 6:30 a. m. For Fair Haven Plum Point, Governor's Run, 6:30 a. m. Tuesdays and Friday. Freight received daily at Pier 8 Light St. From Pier 8 Light st., for the Patuxent river direct as far as Bristol, Sunday, Tuesday & Thursday at 3 p. m. Freight received daily.

POTOMAC RIVER ROUTE.—For Washington, Alexandria and all landings in the Potomac river, Sunday, Wednesday and Friday at 6 p. m. For landings on the Potomac as far as Stone, Tuesday at 6 p. m. Freight received daily at Pier 9, Light st. Steamer leaves Seventh st. wharf, Washington, Sunday at 4 p. m., Monday and Thursday at 9 p. m.

RAPPAHANNOCK RIVER ROUTE.—For Fredericksburg and all landings on the Rappahannock river, Tuesday and Friday at 4:30 p. m. For the Rappahannock as far as Naylor, Wednesday at 4:30 P. M., Sunday at 2:30 P. M. Freight received at Pier 2, Light st. daily. No freight for out-going steamer received after 4 p. m., sailing days.

HENRY WILLIAMS, Agent,
Office, Pier 2, Light Street.

The Ericsson Line.

Attractive Water Route to Philadelphia. Cabin fare \$2. Deck fare \$1.50. Steamers entirely run by electricity, lighted throughout with electricity. Round trip ticket \$2, for sale only at Company's Office. Steamers sail at 5 P. M. Write or send for descriptive pamphlet of route and the great fishing grounds at Betterton. CLARENCE SHRIVER, Agent, 204 Light Street.

Chester River Steamboat Co.,

Until further notice, Steamers of this line will leave Pier 7 Light street, as follows:

At 2:30 p. m., daily except Sunday for Rock Hall, Jackson Creek and Centreville and landings on the Corsica river. At 10:30 a. m., Tuesday, Thursday and Saturday, for Kent Island, Queenstown, Bogles Quaker Neck, Bookers, Ralphs and Chestertown.

Steamer CORSICA, at midnight, Monday, Wednesday and Friday, for Quaker Neck, Bookers, Ralphs, Chestertown, Round Top, Buckingham, Deep Landing, Sprigs and Crampton.

Freight received daily.

GEORGE WARFIELD, President.

Richmond & York River Line.

On and after Tuesday March 5th, steamers of this line leave Baltimore daily (Sunday excepted) at 5 p. m. for Westpoint, Richmond and the South, arriving at Richmond at 9:07 a. m., connecting with trains of the Southern Railway system. Steamer sailing Monday, Wednesday and Friday calling at Gloucester Point and Allmond's Wharf. Steamer sailing Tuesday, Thursday and Saturday calling at Yorktown and Clay Bank.

Through tickets and bills of lading issued to all points on the Southern Railway system. Way freight must be prepaid. Fare to Richmond—1st class, \$2.50; round trip, \$4. Tickets sold and baggage checked at GEIGAN & CO'S. 205 East Baltimore street. E. J. CHISM, G. F. and T. A.

REUBEN FOSTER, General Manager.

Annapolis,

West and Rhode Rivers.

Steamer Emma Giles, for Annapolis and West River Route Mondays, Wednesdays and Fridays, at 7:30 A. M.

Little Choptank River and Lowe's Wharf Tuesdays and Thursdays at 6:30 A. M.;
Tolchester, Saturdays at 7 A. M., and 2:30 P. M.
Freight received daily at Pier 16 Light street.

THE GREEN HOUSE,

East Pratt Street, Baltimore, Md.

J & B. L. WAGNER
PROPRIETORS.

This RESTAURANT is the oldest and most extensive in its accommodations of any in the city. The BAR is filled with the finest of all kinds of LIQUORS. The TABLES are covered with the best substantial food the markets afford, besides, at the earliest moment they can be procured in the different seasons, every variety of delicacy that land and water furnish, in

Birds, Game, Fish, Fruits & Vegetables

Prices moderate. The crowds, which lunch and dine daily, attest public approbation of the superior management of the house.

It is a convenient place for travelers, who stop only a few hours or a day in the city, to get their meals. It is the popular resort of country gentlemen from the counties, particularly from Southern Maryland, being convenient to Railroads and Steamboats, and in the midst of the business portion of the city.

The proprietors will be grateful for the continuance of the extensive patronage they now enjoy and will do the best to give entire satisfaction to all visitors.

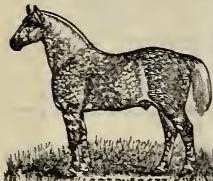
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250 Farms For Sale. On the Eastern Shore of Maryland and Virginia, Land cheap and productive, convenient to market both by land and water. No panics or blizzards, send stamp for descriptive price list and map of the Peninsula to

F. H. Dryden, Pocomoke City, Md.

NOTICE! SOMETHING NEW!

Dr. Spranklin's Bay Side Stock Farm.

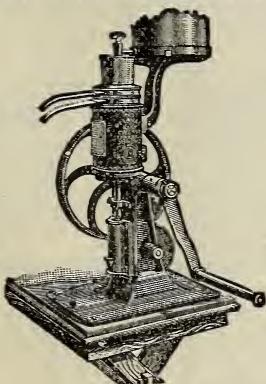


Salt Water Bathing and Soak for Horses in the Chesapeake Bay, only two and one-half hours run on the Steamer Emma Giles to Spranklin Wharf, where they receive professional care, board and medicine at \$10 per month. Horses sent for and delivered.

Disabled animals sent to boat in a mbulance free. Box stall for all Five hundred acres of land, with spring water in every field. Special rates given to firms with several or more horses to winter or pasture. The largest and most complete establishment of its kind in the U. S. Horses are sent here for treatment from every section of the country. For further information call at

MARYLAND VETERINARY HOSPITAL,
Telephone—1565. 1311 to 1321 Harford Ave.,

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OR MORE COWS?**



If so a "Baby" Cream Separator will earn its cost for you every year. Why continue an inferior system another year at so great a loss? Dairying is now the only profitable feature of Agriculture. Properly conducted it always pays well, and must pay you. You need a Separator, and you need the **BEST**,—the "Baby." All styles and capacities. Prices, \$75.00 upward. Send for new 1893 Catalogue.

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Dorset Horn Sheep,

Bred from Imported and American Ewes, also, A. J. C. C. Jerseys of fashionable butter strains. Correspondence Solicited, GALLOWAY CHESTON, Harwood, Md.



FINE BLOODED Cattle, Sheep, Hogs, Poultry, Sporting Dogs. Send stamps for catalogue, 150 engravings N. P. BOXER & CO., Coatesville, Pa.

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Sold 1673 O. I. C. HOGS
IN 1894.
Send for a description of **THIS FAMOUS BREED**, two of which weighed 2806 lbs. First applicant from each locality can have a pair on time and an agency.

The L. B. SILVER CO.,
CLEVELAND, O.



EFFACER CREAM

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**INSTANTANIOUS
BEAUTIFIER.**

Thoroughly endorsed by Physicians and guaranteed to remove Wrinkles, Freckles, Pimples, Sallowness &c. A single trial will prove its merits.

Treatment free, For sale everywhere.
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The Climax Gas Apparatus is the latest modern development in gas lighting. Suitable for any House, Hotel or Institution in City or Country. With these wonderful improvements gas is produced at 65c. per 1000 cubic feet and is brilliant, smokeless and clear. Equal to city gas at half the cost. You can use the Welsbach Burner with it and do cooking, laundry work, heating, pump your water, etc. We make a special apparatus for lighting towns, etc. Can supply fuel gas at 25c., (also suitable for Welsbach Burners.) or illuminating gas at 65c. Come and see our apparatus. All work warranted to prove satisfactory and trial allowed before payment.

C. M. KEMP M'F'G CO.,
Telephone 1518. Guilford Ave., and Oliver St.

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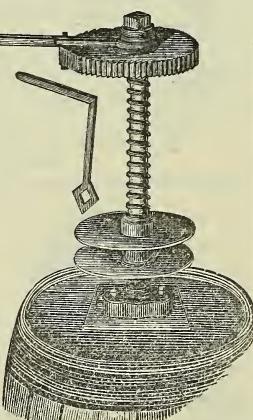
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All the different sizes and Styles, and of the most approved design made to order at my Iron Foundry.

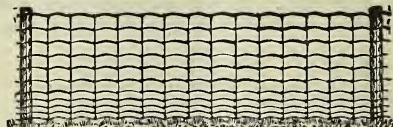
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Cor. President and Pratt St., Baltimore, Md.



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If a Page agent claims our wire is 50 to 100 per cent better than used in any other fence. Make him prove it. He can do it or we will disown him.

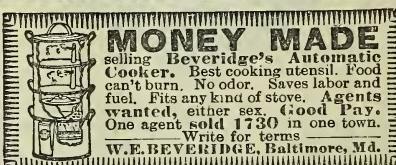
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

WOVEN WIRE FENCE

Over 50 Styles

The best on Earth. Horse high, Bull strong, Pig and Chicken tight. You can make from 40 to 60 rods per day for from \$4 to \$22. a Rod. Illustrated Catalogue Free.

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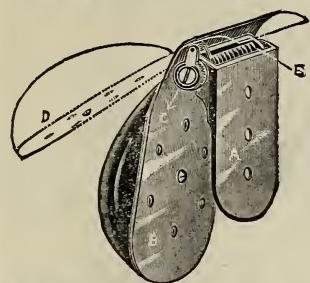


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PANTS?



Your address, with six cents in stamps, mailed to our Headquarters, 11 Eliot St., Boston, Mass., will bring you a full line of samples, and rules for self-measurement, of our justly famous \$3 pants; Suits, \$13.25; Over coats, \$10.25, and up. Cut to order. Agents wanted everywhere.

New Plymouth Rock Co.



TRUSSES

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Book on Cause, Treatment and Cure of Rupture MAILED FREE.

ARTIFICIAL LIMBS. BEST LEG, Wood or Rubber Foot, \$50 to \$70. Elastic Stockings, Supporters, Crutches, &c. Free Catalogue. State particulars. **GEO. R. FULLER, U. S. Gov. Mfr., Box 2078 ROCHESTER, N. Y.**

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LADIES, By special request from patients who cannot personally consult me, and being unable to prepare at short notice the Favorite Prescription as used by me during a practice of twenty-five years, have consented to supply to you this celebrated Remedy for all Female irregularities and suppressions. These Pills are guaranteed six degrees stronger than any known medicine, yet so mild that the feeblest can take them with perfect security, yet so powerful in their effects that they can be safely called a never-failing regulator. Refuse all Patent Medicines and avoid delay by taking the prepared prescription of a Specialist in practice Highly indorsed by thousands and recommended by prominent physicians. All orders supplied direct from office, 107 Park Ave., Baltimore, Md., or sent by mail, sealed, upon receipt of price. Five Dollars per box of fifty pills, (the only size) with full directions inclosed. Cut this out and preserve for reference.

The Zulauf Rupture Cure Co.,

Sure, Safe, Simple and Painless.

A cure guaranteed. No operation or detraction from business. 30 years successful practice. A lady attends on ladies and children.

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BALTIMORE, MD.



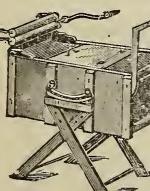
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Liberal inducements to live agents

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The old-fashioned and always reliable remedy for stomach disorders. One bottle has killed 614 worms. Thousands of people living to-day owe their life to this medicine. The same good medicine

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